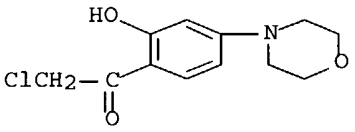
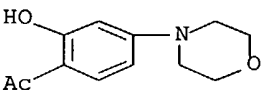
claim 41

L4 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2004:627189 CAPLUS Full-text
TI Isoform-specific phosphoinositide 3-kinase inhibitors from an arylmorpholine scaffold
AU Knight, Zachary A.; Chiang, Gary G.; Alaimo, Peter J.; Kenski, Denise M.; Ho, Caroline B.; Coan, Kristin; Abraham, Robert T.; Shokat, Kevan M.
CS Program in Chemistry and Chemical Biology, University of California, San Francisco, CA, 94143, USA
SO Bioorganic & Medicinal Chemistry (2004), 12(17), 4749-4759
CODEN: BMECEP; ISSN: 0968-0896
PB Elsevier Ltd.
DT Journal
LA English
AB Phosphoinositide 3-kinases (PI3-Ks) are an ubiquitous class of signaling enzymes that regulate diverse cellular processes including growth, differentiation, and motility. Physiol. roles of PI3-Ks have traditionally been assigned using two pharmacol. inhibitors, LY294002 and wortmannin. Although these compds. are broadly specific for the PI3-K family, they show little selectivity among family members, and the development of isoform-specific inhibitors of these enzymes has been long anticipated. Herein, the preparation of two classes of arylmorpholine PI3-K inhibitors and the characterization of their specificity against a comprehensive panel of targets within the PI3-K family are reported. Multiplex inhibitors that potently inhibit distinct subsets of PI3-K isoforms, including the first selective inhibitor of p110β/p110δ (IC50 p110β = 0.13 μM, p110δ = 0.63 μM), were identified. Trends that suggest certain PI3-K isoforms may be more sensitive to potent inhibition by arylmorpholines, thereby guiding future drug design based on this pharmacophore, were also identified.
IT **404010-44-2P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation AMA 48 and study of its activity as isoform-specific phosphoinositide 3-kinase inhibitor)
RN 404010-44-2 CAPLUS
CN Ethanone, 2-chloro-1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)

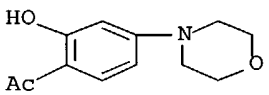


IT **404009-40-1P**, IC 86621
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation IC 86621 and study of its activity as isoform-specific phosphoinositide 3-kinase inhibitor)
RN 404009-40-1 CAPLUS
CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)

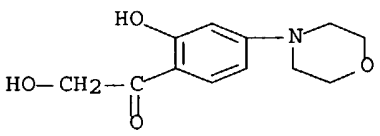


RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2004:7906 CAPLUS Full-text
DN 140:368226
TI DNA-dependent protein kinase inhibitors as drug candidates for the treatment of cancer
AU Kashishian, Adam; Douangpanya, Heather; Clark, Darcey; Schlachter, Stephen T.; Eary, C. Todd; Schiro, Justin G.; Huang, Hongmei; Burgess, Larry E.; Kesicki, Edward A.; Halbrook, James
CS ICOS Corporation, Bothell, WA, USA
SO Molecular Cancer Therapeutics (2003), 2(12), 1257-1264
CODEN: MCTOCF; ISSN: 1535-7163
PB American Association for Cancer Research
DT Journal
LA English
AB Cancer presents a difficult challenge for oncologists, as there are few therapies that specifically target disease cells. Existing treatment strategies rely heavily on phys. and chemical agents that nonspecifically affect DNA metabolism To improve the effectiveness of these treatments, we have identified a new class of protein kinase inhibitor that targets a major DNA repair pathway. A representative of this class, 1-(2-hydroxy-4-morpholin-4-yl-phenyl)-ethanone, inhibits the DNA-dependent protein kinase (DNA-PK) and differs significantly from previously studied DNA-PK inhibitors both structurally and functionally. DNA-PK participates in the cellular response to and repair of chromosomal DNA double-strand breaks (DSBs). These new selective inhibitors recapitulate the phenotype of DNA-PK defective cell lines including those from SCID mice. These compds. directly inhibit the repair of DNA DSBs and consequently enhance the cytotoxicity of phys. and chemical agents that induce DSBs but not other DNA lesions. In contrast to previously studied DNA-PK inhibitors, these compds. appear benign, exhibiting no toxic effects in the absence of DSB-inducing treatments. Most importantly, 1-(2-hydroxy-4-morpholin-4-yl- phenyl)-ethanone synergistically enhances radiation-induced tumor control in a mouse-human xenograft assay. These studies validate DNA-PK as a cancer drug target and suggest a new approach for enhancing the effects of existing cancer therapies.
IT **404009-40-1 404011-13-8**
RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(DNA-dependent protein kinase inhibitors as drug candidates for treatment of cancer in relation to RPA phosphorylation)
RN 404009-40-1 CAPLUS
CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)

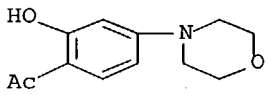


RN 404011-13-8 CAPLUS
CN Ethanone, 2-hydroxy-1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD

L4 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2003:830035 CAPLUS Full-text
DN 140:317212
TI Interactive Competition Between Homologous Recombination and Non-Homologous End Joining
AU Allen, Chris; Halbrook, James; Nickoloff, Jac A.
CS Department of Molecular Genetics and Microbiology, University of New Mexico School of Medicine, Albuquerque, NM, 87131, USA
SO Molecular Cancer Research (2003), 1(12), 913-920
CODEN: MCROC5; ISSN: 1541-7786
PB American Association for Cancer Research
DT Journal
LA English
AB DNA-dependent protein kinase (DNA-PK), composed of Ku70, Ku80, and the catalytic subunit (DNA-PKcs), is involved in double-strand break (DSB) repair by non-homologous end joining (NHEJ). DNA-PKcs defects confer ionizing radiation sensitivity and increase homologous recombination (HR). Increased HR is consistent with passive shunting of DSBs from NHEJ to HR. We therefore predicted that inhibiting the DNA-PKcs kinase would increase HR. A novel DNA-PKcs inhibitor (1-(2-hydroxy-4-morpholin-4-yl-phenyl)- ethanone; designated IC86621) increased ionizing radiation sensitivity but surprisingly decreased spontaneous and DSB-induced HR. Wortmannin also inhibits DNA-PKcs and reduces DSB-induced HR. IC86621 did not affect HR product outcome, indicating that it affects HR initiation. Thus, HR is increased in the absence of DNA-PKcs, but decreased when DNA-PKcs is catalytically inactive, suggesting interactive competition between HR and NHEJ. The effects of IC86621 and wortmannin were proportional to the level of DNA-PKcs, consistent with inhibited DNA-PKcs acting in a dominant neg. manner. We propose that inhibition of DNA-PKcs blocks its autophosphorylation, prevents dissociation of DNA-PKcs from DNA ends, and thereby blocks both HR and NHEJ. By blocking the two major DSB repair pathways, DNA-PKcs inhibitors should radiosensitize at all cell-cycle stages and are therefore excellent candidates for augmenting cancer radiotherapy.
IT **404009-40-1**, IC 86621
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(interactive competition between homologous recombination and non-homologous end joining: DNA-PKcs inhibitors as radiosensitizers)
RN 404009-40-1 CAPLUS
CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



RE.CNT 73 THERE ARE 73 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:185097 CAPLUS Full-text
DN 136:247591
TI Preparation of arylmorpholines as inhibitors of DNA-dependent protein kinase and methods to potentiate cancer treatment
IN Halbrook, James; Kesicki, Edward; Burgess, Laurence E.; Schlachter, Stephen T.; Eary, Charles T.; Schiro, Justin G.; Huang, Hongmei; Evans, Michael; Han, Yongxin
PA Icos Corporation, USA
SO PCT Int. Appl., 247 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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	WO 2002020500	A3	20030731		
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	US 2002165218	A1	20021107	US 2001-941897	20010828
	EP 1351946	A2	20031015	EP 2001-968164	20010828
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PRAI	US 2000-229899P	P	20000901		
	WO 2001-US26709	W	20010828		

OS MARPAT 136:247591
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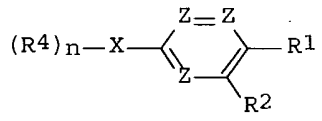

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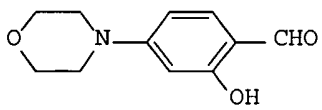


II

AB Compds. that inhibit DNA-dependent protein kinase, I [n = 0-4; X = (un)substituted 4-7 membered aliphatic ring containing 0-3 heteroatoms consisting of N, O and S (X = morpholinyl preferred); Z = independently N or CR3; R3 = independently H, halo, CHO, alkoxy, etc.; R1 = H, (un)substituted alkyl, cycloalkyl, CO, NO2, etc.; R2 = H, (un)substituted alkyl, carbamoyl, alkoxy, sulfamyl, etc.; with provision when X = morpholinyl, R2 and R4 and R3 = H at each occurrence, then R1 is different from COMe, phenylalkene, and NO2; and with the provision that when X = morpholinyl, R4 = H and Z = N at each occurrence, then R1 and R2 when taken together is different from triazole], were prepared

and compns. of I with other antineoplastic agents are claimed for use in cancer treatment therapy. Thus, II was prepared in 23% yield via formylation of 3-(4-morpholinyl)phenol. II demonstrated an IC50 value of 400 nM in DNA-PK assay. Preliminary results of animal tumor model studies indicate II enhanced the tumoristatic effect of total body irradiation (using 100-500 rad γ-radiation, II delayed tumor growth 1.2 to 1.8-fold relative to animals receiving radiation only).

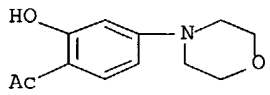
IT **404009-40-1P**

RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(target compound; preparation of arylmorpholines as inhibitors of DNA-dependent protein kinase for cancer treatment)

RN 404009-40-1 CAPLUS

CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



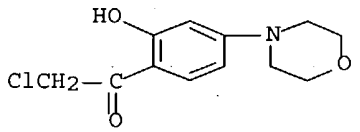
IT **404010-44-2P 404010-52-2P**

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(target compound; preparation of arylmorpholines as inhibitors of DNA-dependent protein kinase for cancer treatment)

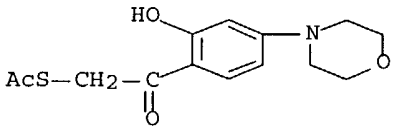
RN 404010-44-2 CAPLUS

CN Ethanone, 2-chloro-1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



RN 404010-52-2 CAPLUS

CN Ethanethioic acid, S-[2-[2-hydroxy-4-(4-morpholinyl)phenyl]-2-oxoethyl] ester (9CI) (CA INDEX NAME)

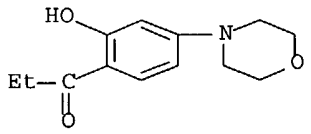


IT **404009-42-3P 404009-44-5P 404009-48-9P**
404010-36-2P 404010-38-4P 404010-45-3P
404010-46-4P 404010-47-5P 404010-51-1P
404010-53-3P 404011-13-8P

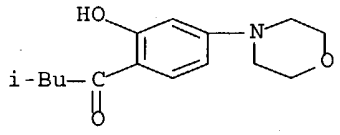
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)(target compound; preparation of arylmorpholines as inhibitors of DNA-dependent protein kinase for cancer treatment)

RN 404009-42-3 CAPLUS

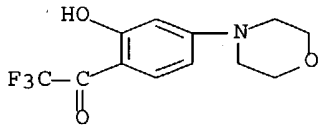
CN 1-Propanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



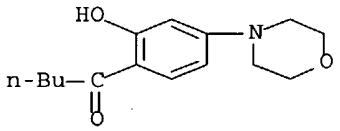
RN 404009-44-5 CAPLUS
CN 1-Butanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]-3-methyl- (9CI) (CA INDEX NAME)



RN 404009-48-9 CAPLUS
CN Ethanone, 2,2,2-trifluoro-1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



RN 404010-36-2 CAPLUS
CN 1-Pentanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



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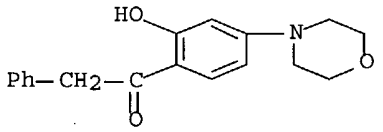
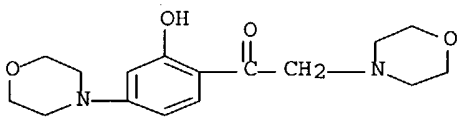


RN 404010-45-3 CAPLUS
CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]-2-(4-morpholinyl)- (9CI) (CA INDEX NAME)



RN 404010-46-4 CAPLUS
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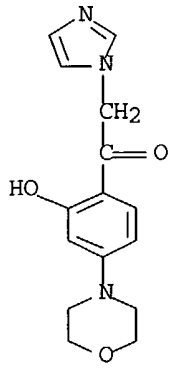

RN 404010-47-5 CAPLUS
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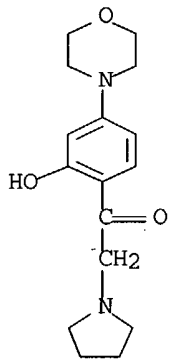
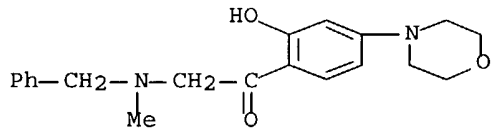
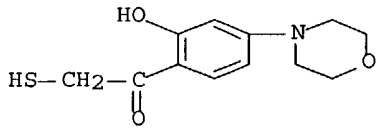


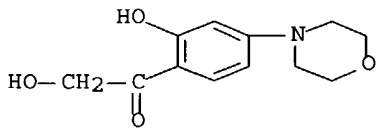
RN 404010-51-1 CAPLUS
CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]-2-[methyl(phenylmethyl)amino]- (9CI) (CA INDEX NAME)



RN 404010-53-3 CAPLUS
CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]-2-mercapto- (9CI) (CA INDEX NAME)



RN 404011-13-8 CAPLUS
CN Ethanone, 2-hydroxy-1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



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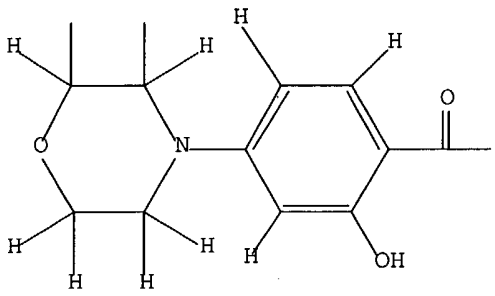

Structure attributes must be viewed using STN Express query preparation.

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     FILE 'REGISTRY' ENTERED AT 16:58:06 ON 26 OCT 2004
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L2              0 S L1
L3             14 S L1 FUL

     FILE 'CAPLUS' ENTERED AT 16:58:53 ON 26 OCT 2004
L4              4 S L3

     FILE 'BEILSTEIN' ENTERED AT 16:59:28 ON 26 OCT 2004
L5              0 S L1
L6              0 S L1 FUL

     FILE 'MARPAT' ENTERED AT 16:59:50 ON 26 OCT 2004


COST IN U.S. DOLLARS                            SINCE FILE      TOTAL
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FULL ESTIMATED COST                                0.42     175.59

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)      SINCE FILE      TOTAL
                                                   ENTRY    SESSION
CA SUBSCRIBER PRICE                                0.00      -2.80

STN INTERNATIONAL LOGOFF AT 17:00:06 ON 26 OCT 2004
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claim 38, 39 R^2 = OH

L7 ANSWER 1 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2004:631293 CAPLUS Full-text
DN 141:181906
TI Organophotoreceptor with charge transport material having an amino-substituted hydrazone group and an epoxy group
IN Tokarski, Zbigniew; Jubran, Nusrallah; Montrimas, Edmundas; Gavutiene, Janina; Getautis, Vytautas; Law, Kam W.; Daskeviciene, Maryte
PA Samsung Electronics Co., Ltd., S. Korea
SO Eur. Pat. Appl., 26 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 1443365	A1	20040804	EP 2004-250291	20040121
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
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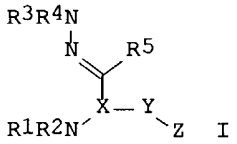
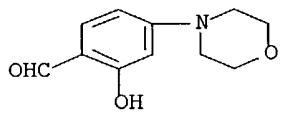
JP 2004234012	A2	20040819	JP 2004-23802	20040130
PRAI US 2003-444001P	P	20030131		
US 2003-749164	A	20031230		

OS MARPAT 141:181906
GI



AB The present invention provides an organo photoreceptor comprising an elec. conductive substrate and a photoconductive element on the elec. conductive substrate, the photoconductive element comprising: (a) a charge transport material having the formula I (R1-4 = alkyl group, alkaryl group, aryl group, or a part of a cyclic group; R5 = H, alkyl group, alkaryl group, aryl group, heterocyclic group; X comprises an aromatic group, such as an aryl group or an aromatic heterocyclic group; Y = -(CH2)m-; m = 1-20; inclusive, and one or more of the methylene groups is optionally replaced Z comprises an epoxy group); and (b) a charge generating compound Corresponding electrophotog. apparatuses and imaging methods are described.

IT **70362-07-1**
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of charge transport material for electrophotog. organo photoreceptor)
RN 70362-07-1 CAPLUS
CN Benzaldehyde, 2-hydroxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)

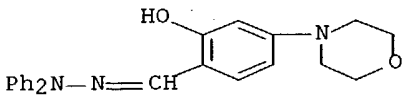


IT **732289-96-2P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)

(preparation of charge transport material for electrophotog. organo photoreceptor)

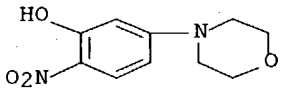
RN 732289-96-2 CAPLUS

CN Benzaldehyde, 2-hydroxy-4-(4-morpholinyl)-, diphenylhydrazone (9CI) (CA INDEX NAME)

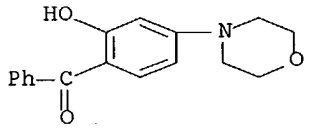


RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2004:627189 CAPLUS Full-text
TI Isoform-specific phosphoinositide 3-kinase inhibitors from an arylmorpholine scaffold
AU Knight, Zachary A.; Chiang, Gary G.; Alaimo, Peter J.; Kenski, Denise M.;
Ho, Caroline B.; Coan, Kristin; Abraham, Robert T.; Shokat, Kevan M.
CS Program in Chemistry and Chemical Biology, University of California, San Francisco, CA, 94143, USA
SO Bioorganic & Medicinal Chemistry (2004), 12(17), 4749-4759
CODEN: BMECEP; ISSN: 0968-0896
PB Elsevier Ltd.
DT Journal
LA English
AB Phosphoinositide 3-kinases (PI3-Ks) are an ubiquitous class of signaling enzymes that regulate diverse cellular processes including growth, differentiation, and motility. Physiol. roles of PI3-Ks have traditionally been assigned using two pharmacol. inhibitors, LY294002 and wortmannin. Although these compds. are broadly specific for the PI3-K family, they show little selectivity among family members, and the development of isoform-specific inhibitors of these enzymes has been long anticipated. Herein, the preparation of two classes of arylmorpholine PI3-K inhibitors and the characterization of their specificity against a comprehensive panel of targets within the PI3-K family are reported. Multiplex inhibitors that potently inhibit distinct subsets of PI3-K isoforms, including the first selective inhibitor of p110β/p110δ (IC50 p110β = 0.13 μM, p110δ = 0.63 μM), were identified. Trends that suggest certain PI3-K isoforms may be more sensitive to potent inhibition by arylmorpholines, thereby guiding future drug design based on this pharmacophore, were also identified.
IT **175135-19-0**
RL: PAC (Pharmacological activity); BIOL (Biological study)
(preparation (aryl)morpholine derivs. and study of their activity as isoform-specific phosphoinositide 3-kinase inhibitors in comparison to AMA 56)
RN 175135-19-0 CAPLUS
CN Phenol, 5-(4-morpholinyl)-2-nitro- (9CI) (CA INDEX NAME)



IT **404009-46-7P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation AMA 37 and study of its activity as isoform-specific phosphoinositide 3-kinase inhibitor)
RN 404009-46-7 CAPLUS
CN Methanone, [2-hydroxy-4-(4-morpholinyl)phenyl]phenyl- (9CI) (CA INDEX NAME)

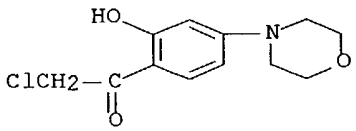


IT **404010-44-2P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL

(Biological study); PREP (Preparation)
(preparation AMA 48 and study of its activity as isoform-specific phosphoinositide 3-kinase inhibitor)

RN 404010-44-2 CAPLUS

CN Ethanone, 2-chloro-1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)

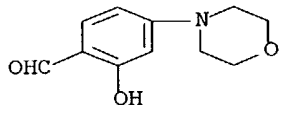


IT **70362-07-1P**

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
(preparation IC 60211 and study of its activity as isoform-specific phosphoinositide 3-kinase inhibitor)

RN 70362-07-1 CAPLUS

CN Benzaldehyde, 2-hydroxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)

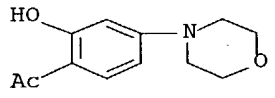


IT **404009-40-1P**, IC 86621

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation IC 86621 and study of its activity as isoform-specific phosphoinositide 3-kinase inhibitor)

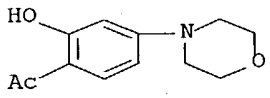
RN 404009-40-1 CAPLUS

CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)

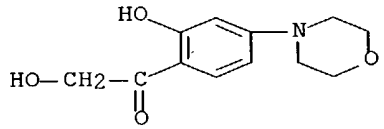


RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 3 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2004:7906 CAPLUS Full-text
DN 140:368226
TI DNA-dependent protein kinase inhibitors as drug candidates for the treatment of cancer
AU Kashishian, Adam; Douangpanya, Heather; Clark, Darcey; Schlachter, Stephen T.; Eary, C. Todd; Schiro, Justin G.; Huang, Hongmei; Burgess, Larry E.; Kesicki, Edward A.; Halbrook, James
CS ICOS Corporation, Bothell, WA, USA
SO Molecular Cancer Therapeutics (2003), 2(12), 1257-1264
CODEN: MCTOCF; ISSN: 1535-7163
PB American Association for Cancer Research
DT Journal
LA English
AB Cancer presents a difficult challenge for oncologists, as there are few therapies that specifically target disease cells. Existing treatment strategies rely heavily on phys. and chemical agents that nonspecifically affect DNA metabolism To improve the effectiveness of these treatments, we have identified a new class of protein kinase inhibitor that targets a major DNA repair pathway. A representative of this class, 1-(2-hydroxy-4-morpholin-4-yl-phenyl)-ethanone, inhibits the DNA-dependent protein kinase (DNA-PK) and differs significantly from previously studied DNA-PK inhibitors both structurally and functionally. DNA-PK participates in the cellular response to and repair of chromosomal DNA double-strand breaks (DSBs). These new selective inhibitors recapitulate the phenotype of DNA-PK defective cell lines including those from SCID mice. These compds. directly inhibit the repair of DNA DSBs and consequently enhance the cytotoxicity of phys. and chemical agents that induce DSBs but not other DNA lesions. In contrast to previously studied DNA-PK inhibitors, these compds. appear benign, exhibiting no toxic effects in the absence of DSB-inducing treatments. Most importantly, 1-(2-hydroxy-4-morpholin-4-yl- phenyl)-ethanone synergistically enhances radiation-induced tumor control in a mouse-human xenograft assay. These studies validate DNA-PK as a cancer drug target and suggest a new approach for enhancing the effects of existing cancer therapies.
IT **404009-40-1 404011-13-8 683270-05-5**
RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(DNA-dependent protein kinase inhibitors as drug candidates for treatment of cancer in relation to RPA phosphorylation)
RN 404009-40-1 CAPLUS
CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)

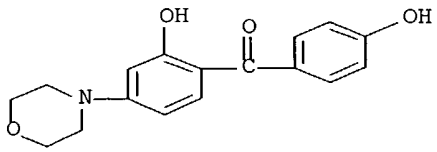


RN 404011-13-8 CAPLUS
CN Ethanone, 2-hydroxy-1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



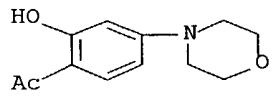
RN 683270-05-5 CAPLUS

CN Methanone, [2-hydroxy-4-(4-morpholinyl)phenyl](4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 4 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2003:830035 CAPLUS Full-text
DN 140:317212
TI Interactive Competition Between Homologous Recombination and Non-Homologous End Joining
AU Allen, Chris; Halbrook, James; Nickoloff, Jac A.
CS Department of Molecular Genetics and Microbiology, University of New Mexico School of Medicine, Albuquerque, NM, 87131, USA
SO Molecular Cancer Research (2003), 1(12), 913-920
CODEN: MCROC5; ISSN: 1541-7786
PB American Association for Cancer Research
DT Journal
LA English
AB DNA-dependent protein kinase (DNA-PK), composed of Ku70, Ku80, and the catalytic subunit (DNA-PKcs), is involved in double-strand break (DSB) repair by non-homologous end joining (NHEJ). DNA-PKcs defects confer ionizing radiation sensitivity and increase homologous recombination (HR). Increased HR is consistent with passive shunting of DSBs from NHEJ to HR. We therefore predicted that inhibiting the DNA-PKcs kinase would increase HR. A novel DNA-PKcs inhibitor (1-(2-hydroxy-4-morpholin-4-yl-phenyl)- ethanone; designated IC86621) increased ionizing radiation sensitivity but surprisingly decreased spontaneous and DSB-induced HR. Wortmannin also inhibits DNA-PKcs and reduces DSB-induced HR. IC86621 did not affect HR product outcome, indicating that it affects HR initiation. Thus, HR is increased in the absence of DNA-PKcs, but decreased when DNA-PKcs is catalytically inactive, suggesting interactive competition between HR and NHEJ. The effects of IC86621 and wortmannin were proportional to the level of DNA-PKcs, consistent with inhibited DNA-PKcs acting in a dominant neg. manner. We propose that inhibition of DNA-PKcs blocks its autophosphorylation, prevents dissociation of DNA-PKcs from DNA ends, and thereby blocks both HR and NHEJ. By blocking the two major DSB repair pathways, DNA-PKcs inhibitors should radiosensitize at all cell-cycle stages and are therefore excellent candidates for augmenting cancer radiotherapy.
IT **404009-40-1**, IC 86621
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(interactive competition between homologous recombination and non-homologous end joining: DNA-PKcs inhibitors as radiosensitizers)
RN 404009-40-1 CAPLUS
CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



RE.CNT 73 THERE ARE 73 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 5 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2003:696882 CAPLUS Full-text
DN 139:230615
TI Preparation of benzofurans and benzothiophenes useful in the treatment of hyperproliferative disorders
IN Zhang, Chengzhi; Burke, Michael; Chen, Zhi; Dumas, Jacques; Fan, Dongping; Fan, Jianmei; Hatoum-Mokdad, Holia; Jones, Benjamin D.; Ladouceur, Gaetan; Lee, Wendy; Phillips, Barton
PA Bayer Pharmaceuticals Corporation, USA
SO PCT Int. Appl., 138 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2003072561	A1	20030904	WO 2003-US5396	20030221

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI US 2002-359011P	P	20020222	
US 2002-399886P	P	20020731	

OS MARPAT 139:230615
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

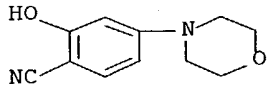
AB Title compds. I [wherein X = O, S; R1 = H, alkyl, (CO)alkyl, benzoyl; R2 = (un)substituted Ph, naphthyl, (un)substituted heterocyclyl; R3 = H, OH, CN, alkyl, alkoxy, halo, haloalkyl, haloalkoxy; R4 = piperonyl, (un)substituted heterocyclyl, Ph and naphthyl; R5, R6 = independently H, OH, CN, alkyl, alkoxy, halo, haloalkyl and haloalkoxy; and their pharmaceutically acceptable salts or esters] were prepared as antitumor agents for treatment of hyperproliferative disorders. For example, II was prepared from 2-bromo-3'-methoxy-acetophenone by cyclocondensation with acetamide at 110° for 40 h, demethylation in DCM at room temperature for 2 h, reaction with paraformaldehyde in CH3CN/TEA in the presence of MgCl2 at reflux for 17 h, reaction with nitroethane in AcOH/AcONa at reflux for 17 h, and K2CO3-catalyzed cyclocondensation of the resultant nitrile with 2-methoxyphenacyl bromide in anhydrous DMF. III was prepared, in 28.2% yield, by Pd-cross coupling of (3-amino-6-iodo-1-benzothiophene-2-yl)(2,4- dichlorophenyl)methanone with pyridine-3-boronic acid in 1,2-dimethoxyethane at 80° for 18 h. I showed a significant inhibition of tumor cell proliferation in the adherent tumor cell proliferation assay (no data). Thus, I and their formulations are useful as antitumor agents (no data).

IT **404009-32-1P**, 2-Hydroxy-4-(morpholin-4-yl)benzonitrile
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)
(intermediate; preparation of benzofurans and benzothiophenes for treatment
of hyper-proliferative disorders)

RN 404009-32-1 CAPLUS

CN Benzonitrile, 2-hydroxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)

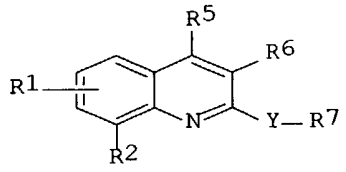


RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

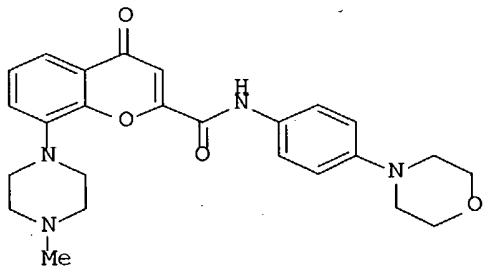
L7 ANSWER 6 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2003:356424 CAPLUS Full-text
DN 138:368765
TI Preparation of 4-oxo-4H-chromene-2-carboxamides and 4-oxo-1,4-dihydroquinoline-2-carboxamides as 5-HT antagonists for treatment of psychiatric disorders
IN Chapdelaine, Marc; Davenport, Timothy; Haeberlein, Markus; Horchler, Carey; McCauley, John; Pierson, Edward; Sohn, Daniel
PA Astrazeneca AB, Swed.
SO PCT Int. Appl., 160 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003037872	A1	20030508	WO 2002-SE1989	20021101
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	EP 1451158	A1	20040901	EP 2002-782061	20021101
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
PRAI	SE 2001-3649	A	20011101		
	WO 2002-SE1989	W	20021101		

OS MARPAT 138:368765
GI



I



II

AB Quinolines I [wherein R1 = independently H, halo, OH, CN, MeO, MeS, NHA, NA2, NHCOA, CONH2, CONHA, CONA2, OA, aryl, or (un)substituted (cyclo)alkyl; R2 = NR3(CH2)nN(R3)2, QN(R3)2, NR3QR3, or (un)substituted piperazinyl, homopiperazinyl, or 1,4-diazacyclooctyl; R3 = H, AOH, or (un)substituted (cyclo)alkyl, alkenyl, or alkynyl; R4 = H or (un)substituted alkyl; R5 = O, OR4, N(R4)2 or SR4; R6 = H or Me; R7 =

(un)substituted aryl or heterocyclyl; R8 = CH2, CO, SO2, SO2NH, CONH, O, S, SO, or heterocyclyl connected to R7 by a ring fusion or single bond; A = (un)substituted (cyclo)alkyl, alkenyl, or alkynyl; Q = heterocyclyl; Y = CONH, CONA, NHCO, CSNH, CH2NH, COCH2, CH2CO, CO-piperazinediyl, COR8, NACO, CSNA, CH2NA, NACH2, or 5-membered heterocyclyl] are disclosed as 5-HT1B and 5-HT1D antagonists. Related 4-oxo-4H-chromene-2-carboxamides and 4-oxo-1,4-dihydroquinoline-2-carboxamides were prepared and tested for biol. activity. For example, reaction of di-Et acetylenedicarboxylate with 2-bromophenol in the presence of a catalytic amount of tetrabutylammonium fluoride afforded 2-(2-bromophenoxy)but-2-enedioic acid di-Et ester (91%), which was saponified with NaOH to give the diacid (88%). Cyclization using H2SO4 in EtOH provided Et 8-bromo-4-oxo-4H-chromene-2- carboxylate (24%). Pd-catalyzed substitution with N-methylpiperazine (70%), conversion to the HCl salt of the acid (100%), and amidation with 4-(4-morpholinyl)aniline in the presence of HOBt and TBTU in DMF and TEA gave II. All example compds. showed affinity for 5-HT1B and 5-HT1D receptors with Ki values of < 10 μM. II was among twelve example compds. which reversed 5-HT1B agonist-induced hypothermia in guinea pigs in a dosage range of 0.006 mg/kg - 5.5 mg/kg. In addition, four chromenones demonstrated activity in a learned helplessness assay for antidepressant/antianxiety activity. I are useful for the treatment of psychiatric disorders including but not limited to depression, generalized anxiety, eating disorders, dementia, panic disorder, and sleep disorders (no data). The compds. may also be useful in the treatment of gastrointestinal disorders, motor disorders, endocrine disorders, vasospasm, and sexual dysfunction (no data).

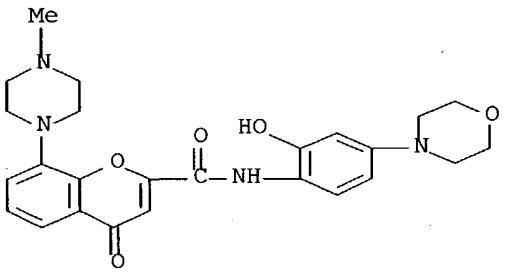
IT **442548-49-4P**

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(5-HT antagonist; preparation of chromenones and quinolinones as 5-HT1B and 5-HT1D antagonists for treatment of psychiatric disorders)

RN 442548-49-4 CAPLUS

CN 4H-1-Benzopyran-2-carboxamide, N-[2-hydroxy-4-(4-morpholinyl)phenyl]-8-(4-methyl-1-piperazinyl)-4-oxo- (9CI) (CA INDEX NAME)

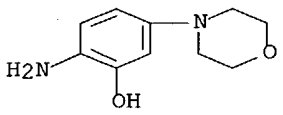


IT **25912-15-6P**, 4-(4-Amino-3-hydroxyphenyl)morpholine

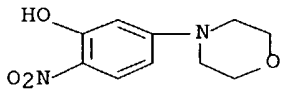
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)

(intermediate; preparation of chromenones and quinolinones as 5-HT1B and
5-HT1D antagonists for treatment of psychiatric disorders)
RN 25912-15-6 CAPLUS
CN Phenol, 2-amino-5-(4-morpholinyl)- (9CI) (CA INDEX NAME)



IT **175135-19-0,** 4-(4-Nitro-3-hydroxyphenyl)morpholine
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of chromenones and quinolinones as 5-HT1B and 5-HT1D antagonists for treatment of psychiatric disorders)
RN 175135-19-0 CAPLUS
CN Phenol, 5-(4-morpholinyl)-2-nitro- (9CI) (CA INDEX NAME)

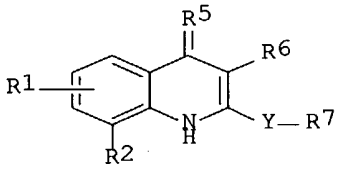


RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 7 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2003:356423 CAPLUS Full-text
DN 138:368764
TI Preparation of 4-oxo-4H-chromene-2-carboxamides and 4-oxo-1,4-dihydroquinoline-2-carboxamides as 5-HT antagonists for treatment of psychiatric disorders
IN Chapdelaine, Marc; Davenport, Timothy; Haeberlein, Markus; Horchler, Carey; Pierson, Edward; Sohn, Daniel; McCauley, John
PA Astrazeneca AB, Swed.
SO PCT Int. Appl., 137 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003037871	A1	20030508	WO 2002-SE1987	20021101
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	EP 1451157	A1	20040901	EP 2002-782060	20021101
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
PRAI	SE 2001-3648	A	20011101		
	WO 2002-SE1987	W	20021101		

OS MARPAT 138:368764
GI



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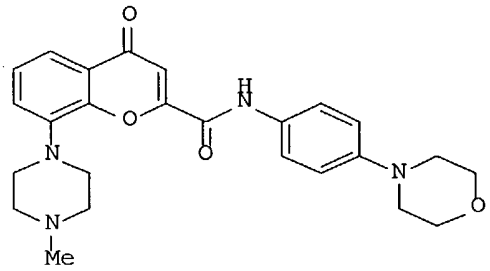


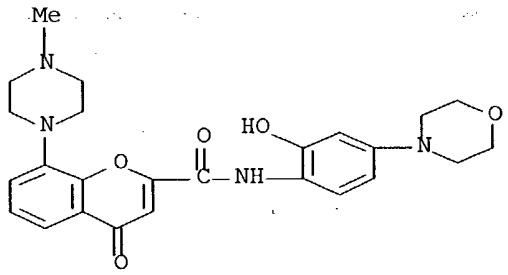
II

AB Title quinolinones I [wherein R1 = H, halo, OH, CN, MeO, MeS, NHA, NA2, NHCOA, CONH2, CONHA, CONA2, OA, aryl, or (un)substituted (cyclo)alkyl; R2 = NR3(CH2)nN(R3)2, QN(R3)2, NR3QR3, or (un)substituted piperazinyl, homopiperazinyl, or 1,4-diazacyclooctyl; R3 = H, AOH, or (un)substituted (cyclo)alkyl, alkenyl, or alkynyl; R4 = H or (un)substituted alkyl; R5 = O, NR4, or S; R6 = H or Me; R7 = (un)substituted aryl or heterocyclyl; R8 = CH2, CO, SO2, SO2NH, CONH, O, S, SO, or heterocyclyl connected to R7 by a ring fusion or single bond; A = (un)substituted (cyclo)alkyl, alkenyl, or alkynyl; Q = heterocyclyl; Y = CONH, CONA, NHCO, CSNH, CH2NH, COCH2, CH2CO, CO-piperazinediyl, COR8, NACO, CSNA, CH2NA, NACH2, or 5-membered heterocyclyl] and related chromenones were prepared as 5-HT1B and 5-HT1D antagonists. For example, reaction of di-Et acetylenedicarboxylate with 2-bromophenol in the presence of a catalytic amount of tetrabutylammonium fluoride afforded 2-(2-bromophenoxy)but-2-enedioic acid di-Et ester (91%), which was saponified with NaOH to give the diacid (88%). Cyclization using H2SO4 in EtOH provided Et 8-bromo-4-oxo-4H-chromene-2-carboxylate (24%). Pd-catalyzed substitution with N-methylpiperazine (70%), conversion to the HCl salt of the acid (100%), and amidation with 4-(4-morpholinyl)aniline in the presence of HOBt and TBTU in DMF and TEA gave II. All example compds. showed affinity for 5-HT1B and 5-HT1D receptors with Ki values of < 10 μM. II was among twelve example compds. which reversed 5-HT1B agonist-induced hypothermia in guinea pigs in a dosage range of 0.006 mg/kg - 5.5 mg/kg. In addition, four chromenones demonstrated activity in a learned helplessness assay for antidepressant/antianxiety activity. Thus, I are useful for the treatment of psychiatric disorders including but not limited to depression, generalized anxiety, eating disorders, dementia, panic disorder, and sleep disorders (no data). The compds. may also be useful in the treatment of gastrointestinal disorders, motor disorders, endocrine disorders, vasospasm, and sexual dysfunction (no data).

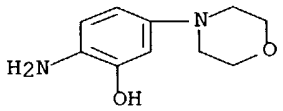
IT **442548-49-4P**, 8-(4-Methylpiperazin-1-yl)-4-oxo-4H-chromene-2-carboxylic acid [2-hydroxy-4-(morpholin-4-yl)phenyl]amide
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(5-HT antagonist; preparation of chromenones and quinolinones as 5-HT1B and
5-HT1D antagonists for treatment of psychiatric disorders)

RN 442548-49-4 CAPLUS

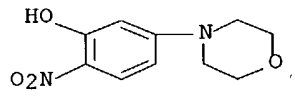
CN 4H-1-Benzopyran-2-carboxamide, N-[2-hydroxy-4-(4-morpholinyl)phenyl]-8-(4-
methyl-1-piperazinyl)-4-oxo- (9CI) (CA INDEX NAME)



IT **25912-15-6P**, 4-(4-Amino-3-hydroxyphenyl)morpholine
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(intermediate; preparation of chromenones and quinolinones as 5-HT1B and
5-HT1D antagonists for treatment of psychiatric disorders)
RN 25912-15-6 CAPLUS
CN Phenol, 2-amino-5-(4-morpholinyl)- (9CI) (CA INDEX NAME)



IT **175135-19-0**, 4-(4-Nitro-3-hydroxyphenyl)morpholine
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of chromenones and quinolinones as 5-HT1B and 5-HT1D
antagonists for treatment of psychiatric disorders)
RN 175135-19-0 CAPLUS
CN Phenol, 5-(4-morpholinyl)-2-nitro- (9CI) (CA INDEX NAME)



RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 8 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:539473 CAPLUS Full-text
DN 137:109293
TI Preparation of piperazinylchromans as 5-HT1B and 5-HT1D agonists/antagonists useful as antimigraine drugs.
IN Chapdelaine, Marc; Davenport, Timothy; Haeberlein, Markus; Horchler, Carey; McCauley, John; Pierson, Edward; Sohn, Daniel
PA Astrazeneca Ab, Swed.
SO PCT Int. Appl., 139 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002055014	A2	20020718	WO 2002-SE70	20020115
	WO 2002055014	A3	20021114		
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	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	EP 1353915	A2	20031022	EP 2002-715919	20020115
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	BR 2002006514	A	20040106	BR 2002-6514	20020115
	JP 2004517130	T2	20040610	JP 2002-555751	20020115
	NO 2003003205	A	20030902	NO 2003-3205	20030715
	US 2004110745	A1	20040610	US 2003-466565	20030716
PRAI	US 2001-262108P	P	20010116		
	SE 2001-3646	A	20011101		
	WO 2002-SE70	W	20020115		

OS MARPAT 137:109293
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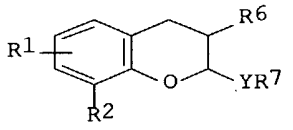


I

AB Title compds. [I; R1 = H, thiomethoxy, NHA, NA2, NHCOA, halo, OH, OA, cyano, aryl, (substituted) alkyl, cycloalkyl, etc.; A = (substituted) alkyl, cycloalkyl, alkenyl, alkynyl; R2 = (substituted) piperazinyl, homopiperazinyl, aminoalkylamino, aminoheterocyclyl, heterocyclylamino; R6 = H, Me; Y = CONH, CONA, CSNH, CH2CO, CH2NA, piperazinylcarbonyl, 5-membered heterocyclylene, etc.; R7 = (substituted) mono- or bicyclic

aryl, heterocyclyl], were prepared Thus, 8-(4-methyl-1-piperazinyl)chroman-2-carboxylic acid hydrochloride (preparation given) in DMF was treated sequentially with 1-hydroxybenzotriazole, O-(1H-benzotriazol-1-yl)- N,N,N',N'-pentamethyleneuronium tetrafluoroborate, Et3N, and 4-(4-morpholinyl)aniline (preparation given) followed by stirring overnight to give 8-(4-methyl-1-piperazinyl)chroman-2-carboxylic acid (4-morpholin-4-ylphenyl)amide. Several I showed 5-HT1B antagonist activity in the range 0.006-5.5 mg/kg in a screen for reversal of hypothermia in guinea pigs.

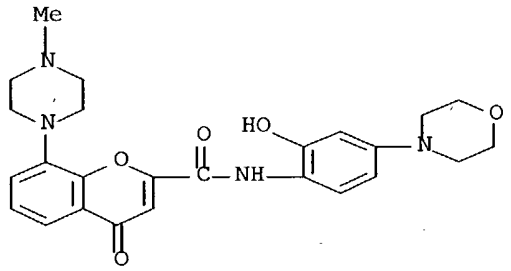
IT **442548-49-4P**

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of piperazinylchromans as 5-HT1B and 5-HT1D agonists/antagonists useful as antimigraine drugs)

RN 442548-49-4 CAPLUS

CN 4H-1-Benzopyran-2-carboxamide, N-[2-hydroxy-4-(4-morpholinyl)phenyl]-8-(4-methyl-1-piperazinyl)-4-oxo- (9CI) (CA INDEX NAME)



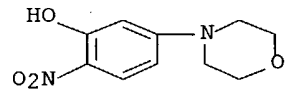
IT **175135-19-0**

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of piperazinylchromans as 5-HT1B and 5-HT1D agonists/antagonists useful as antimigraine drugs)

RN 175135-19-0 CAPLUS

CN Phenol, 5-(4-morpholinyl)-2-nitro- (9CI) (CA INDEX NAME)

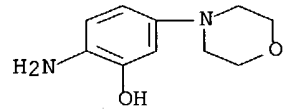


IT **25912-15-6P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)(preparation of piperazinylchromans as 5-HT1B and 5-HT1D agonists/antagonists useful as antimigraine drugs)

RN 25912-15-6 CAPLUS

CN Phenol, 2-amino-5-(4-morpholinyl)- (9CI) (CA INDEX NAME)



L7 ANSWER 9 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:539472 CAPLUS Full-text
DN 137:93772
TI Preparation of piperazinylchromenones as 5-HT1B 5-HT1D agonists/antagonists useful as drugs.
IN Chapdelaine, Marc; Davenport, Timothy; Haeberlein, Markus; Horchler, Carey; McCauley, John; Pierson, Edward; Sohn, Daniel
PA Astrazeneca Ab, Swed.
SO PCT Int. Appl., 150 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002055013	A2	20020718	WO 2002-SE69	20020115
	WO 2002055013	A3	20021114		
	WO 2002055013	C1	20040513		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	EP 1353914	A2	20031022	EP 2002-729623	20020115
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	BR 2002006513	A	20040106	BR 2002-6513	20020115
	JP 2004517129	T2	20040610	JP 2002-555750	20020115
	NO 2003003204	A	20030902	NO 2003-3204	20030715
	US 2004087575	A1	20040506	US 2003-466449	20030716
PRAI	US 2001-262109P	P	20010116		
	SE 2001-3647	A	20011101		
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OS MARPAT 137:93772
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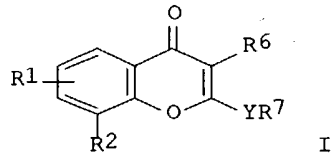


I

AB Title compds. [I; R1 = H, thiomethoxy, NHA, NA2, NHCOA, halo, OH, OA, cyano, aryl, (substituted) alkyl, cycloalkyl, etc.; A = (substituted) alkyl, cycloalkyl, alkenyl, alkynyl; R2 = (substituted) piperazinyl,

homopiperazinyl, aminoalkylamino, aminoheterocyclyl, heterocyclylamino; R6 = H, Me; Y = CONH, CONA, CSNH, CH2CO, CH2NA, piperazinylcarbonyl, 5-membered heterocyclylene, etc.; R7 = (substituted) mono- or bicyclic aryl, heterocyclyl], were prepared Thus, 8-(4-methyl-1-piperazin-1-yl)-4- oxo-4H-chromene-2-carboxylic acid hydrochloride (preparation given) in DMF/Et3N was treated sequentially with 1-hydroxybenzotriazole, O-(1H-benzotriazol-1- yl)-N,N,N',N'-pentamethyleneuronium tetrafluoroborate, 4-dimethylaminopyridine, and 4-(4-morpholinyl)aniline (preparation given) to give 8-(4-methyl-1-piperazinyl)-N-[4-(4-morpholinyl)phenyl]-4-oxo-4H- chromene-2-carboxamide. Several I showed 5-HT1B antagonist activity in the range 0.006-5.5 mg/kg in a screen for reversal of hypothermia in guinea pigs.

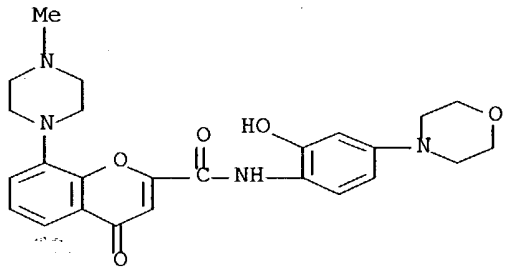
IT **442548-49-4P**

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of piperazinylchromenones as 5-HT1B 5-HT1D agonists/antagonists useful as drugs)

RN 442548-49-4 CAPLUS

CN 4H-1-Benzopyran-2-carboxamide, N-[2-hydroxy-4-(4-morpholinyl)phenyl]-8-(4-methyl-1-piperazinyl)-4-oxo- (9CI) (CA INDEX NAME)



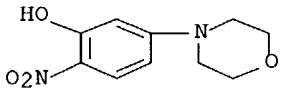
IT **175135-19-0**

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of piperazinylchromenones as 5-HT1B 5-HT1D agonists/antagonists useful as drugs)

RN 175135-19-0 CAPLUS

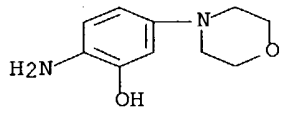
CN Phenol, 5-(4-morpholinyl)-2-nitro- (9CI) (CA INDEX NAME)



IT **25912-15-6P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);

RACT
(Reactant or reagent)
(preparation of piperazinylchromenones as 5-HT1B 5-HT1D agonists/antagonists
useful as drugs)
RN 25912-15-6 CAPLUS
CN Phenol, 2-amino-5-(4-morpholinyl)- (9CI) (CA INDEX NAME)



L7 ANSWER 10 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:539471 CAPLUS Full-text
DN 137:109205
TI Preparation of 4-oxo-4H-chromene-2-carboxamides and related compounds as antagonists or agonists of serotonin 5HT1B and 5HT1D receptors
IN Chapdelaine, Marc; Davenport, Timothy; Haeberlein, Markus; Horchler, Carey; McCauley, John; Pierson, Edward; Sohn, Daniel
PA Astrazeneca Ab, Swed.
SO PCT Int. Appl., 147 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002055012	A2	20020718	WO 2002-SE68	20020115
	WO 2002055012	A3	20021114		
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	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	EP 1353913	A2	20031022	EP 2002-729622	20020115
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	US 2003013708	A1	20030116	US 2002-51776	20020116
	NO 2003003203	A	20030902	NO 2003-3203	20030715
	US 2004082591	A1	20040429	US 2003-466540	20030716
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OS MARPAT 137:109205
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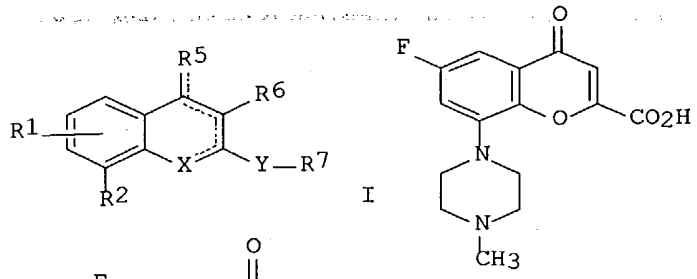

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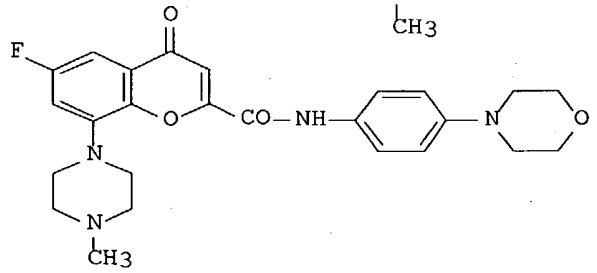


III

AB Title compds. I and their pharmaceutically acceptable salts [R1 = H, alkyl, cycloalkyl, thiomethoxy, etc.; R2 = NR3R3; R3 independently = H, (un)substituted alkylamine e.g., alkyl, alkenyl, alkynyl amino-heterocycle, etc; R3-R3 = (un)substituted cycloalkylamine or amino-heterocycle e.g., alkyl, alkenyl, alkynyl, etc; R5 = H, O, S, etc.; R6 = H, Me; R7 = (un)substituted mono-. or bicylo- aromatic, (un)substituted heterocycle; X = O, N, NH, S; Y = CONH, NHCO, CSNH, etc.] were prepd with the proviso that multiple bonds are separated from each other by at least one single bond. For example, condensation of 4-oxo-4H-chromene-2-carboxylic acid II e.g., prepared from diethylacetylenedicarboxylate and 2-bromo-4-fluorophenol in 5 steps, and 4-morpholin-4-yl-phenylamine provided preferred 4-oxo-4H-chromene-2-carboxamide III. The utility of the compds. of the present invention were tested using a guinea pig hypothermia test, ED50 values for compds. I range from 0.006-5.5 mg/kg. Compds. I are disclosed to be antagonists or agonists of serotonin 5HT1B and 5HT1D receptors (no data provided). Also I are claimed for use in the treatment of gastrointestinal disorders, cardiovascular regulation, motor disorders, etc..

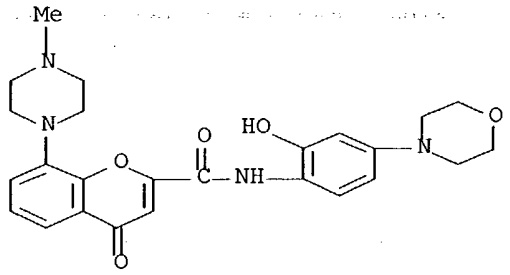
IT **442548-49-4P**

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

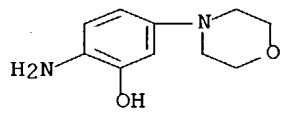
(drug candidate; preparation of 4-oxo-4H-chromene-2-carboxamides and related compds. as antagonists or agonists of serotonin 5HT1B and 5HT1D receptors)

RN 442548-49-4 CAPLUS

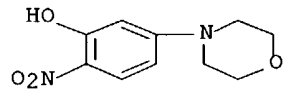
CN 4H-1-Benzopyran-2-carboxamide, N-[2-hydroxy-4-(4-morpholinyl)phenyl]-8-(4-methyl-1-piperazinyl)-4-oxo- (9CI) (CA INDEX NAME)



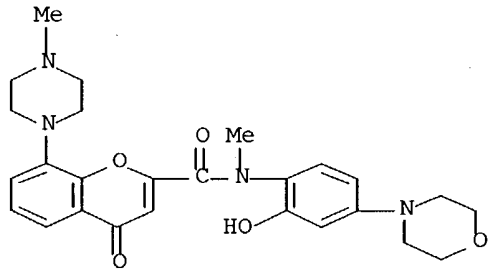
IT **25912-15-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)(intermediate; preparation of 4-oxo-4H-chromene-2-carboxamides and related compds. as antagonists or agonists of serotonin 5HT1B and 5HT1D receptors)
RN 25912-15-6 CAPLUS
CN Phenol, 2-amino-5-(4-morpholinyl)- (9CI) (CA INDEX NAME)



IT **175135-19-0**
RL: RCT (Reactant); RACT (Reactant or reagent)
(precursor; preparation of 4-oxo-4H-chromene-2-carboxamides and related compds. as antagonists or agonists of serotonin 5HT1B and 5HT1D receptors)
RN 175135-19-0 CAPLUS
CN Phenol, 5-(4-morpholinyl)-2-nitro- (9CI) (CA INDEX NAME)



IT **442914-80-9P**
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of 4-oxo-4H-chromene-2-carboxamides and related compds. as antagonists or agonists of serotonin 5HT1B and 5HT1D receptors)
RN 442914-80-9 CAPLUS
CN 4H-1-Benzopyran-2-carboxamide, N-[2-hydroxy-4-(4-morpholinyl)phenyl]-N-methyl-8-(4-methyl-1-piperazinyl)-4-oxo- (9CI) (CA INDEX NAME)



L7 ANSWER 11 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:403616 CAPLUS Full-text
DN 137:7497
TI Manufacture of H acid-based trisazo dyes for leather dyeing
IN Lamm, Gunther; Reichelt, Helmut
PA BASF AG, Germany
SO Ger. Offen., 22 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10059032	A1	20020529	DE 2000-10059032	20001128
	WO 2002044284	A1	20020606	WO 2001-EP13841	20011127
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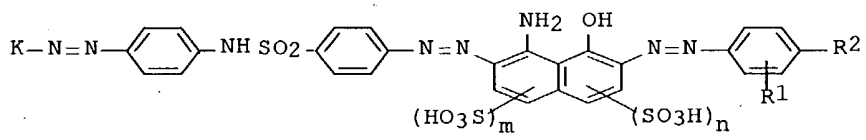
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2002018317	A5	20020611	AU 2002-18317	20011127
PRAI	DE 2000-10059032	A	20001128		
	WO 2001-EP13841	W	20011127		

OS CASREACT 137:7497; MARPAT 137:7497
GI



I

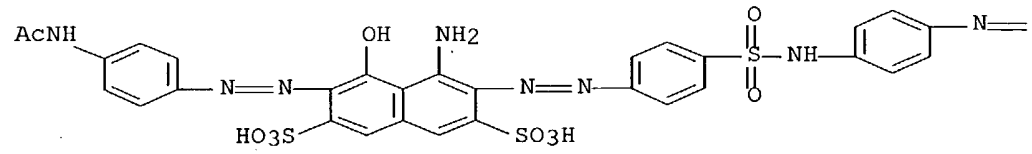
AB Trisazo dyes [I; R1 = H, C1-4 alkyl, halo, SO3H; R2 = R4NYR3, oxadiazolyl; R3 = H, (un)substituted C1-8 alkyl, (un)substituted C3-8 alkyl, (un)substituted Ph, etc.; R4 = (un)substituted C1-8 alkyl, Ph, tolyl, etc.; Y = CO, SO2, bond; R3R4 with NY can form 5-7-membered (annelated) hetero ring; K = residue of coupling component KH; m, n = 0, 1; m + n = 1, 2], useful for dyeing of leather, were manufactured by diazotization of 4-H2NC6H4NHSOC6H4NH2-4' and coupling reactions with H acid and other coupling components, e.g., phenols or anilines.

IT **431975-07-4**
RL: TEM (Technical or engineered material use); USES (Uses)
(manufacture of diaminodiphenyl sulfonamide-based trisazo dyes for leather dyeing)

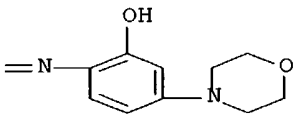
RN 431975-07-4 CAPLUS
CN 2,7-Naphthalenedisulfonic acid, 3-[[4-(acetylamino)phenyl]azo]-5-amino-

4-
hydroxy-6-[[4-[[[4-[[2-hydroxy-4-(4-
morpholinyl)phenyl]azo]phenyl]amino]su
lfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

PAGE 1-A



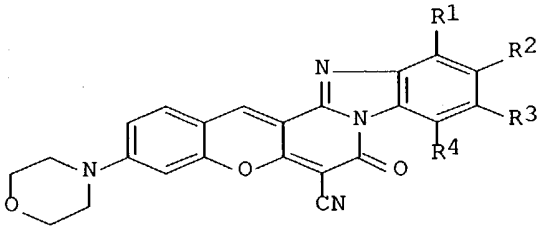
PAGE 1-B



L7 ANSWER 12 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:247796 CAPLUS Full-text
DN 136:270284
TI Benzopyran-type orange to red dye and organic electroluminescent device
IN Sato, Hideki; Sato, Yoshiharu; Endo, Kyoko; Murata, Yukichi
PA Mitsubishi Chemical Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002097382	A2	20020402	JP 2000-284749	20000920
PRAI	JP 2000-284749		20000920		

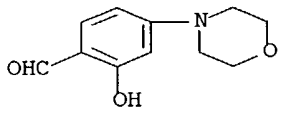
OS MARPAT 136:270284
GI



I

AB The morpholine-substituted benzopyran dye is that represented as I (R1-R4 = H, substituent; any groups in R1-R4 may form rings). The electroluminescent device involves a substrate, an anode, an organic layer, and a cathode laminated in this order wherein the organic layer contains I. The orange to red dye is suitable for thin film electroluminescent devices.

IT **70362-07-1**
RL: RCT (Reactant); RACT (Reactant or reagent)
(for preparation of morpholine-substituted benzopyran-type orange to red dye for organic electroluminescent device)
RN 70362-07-1 CAPLUS
CN Benzaldehyde, 2-hydroxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



L7 ANSWER 13 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:185097 CAPLUS Full-text
DN 136:247591
TI Preparation of arylmorpholines as inhibitors of DNA-dependent protein kinase and methods to potentiate cancer treatment
IN Halbrook, James; Kesicki, Edward; Burgess, Laurence E.; Schlachter, Stephen T.; Eary, Charles T.; Schiro, Justin G.; Huang, Hongmei; Evans, Michael; Han, Yongxin
PA Icos Corporation, USA
SO PCT Int. Appl., 247 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002020500	A2	20020314	WO 2001-US26709	20010828
	WO 2002020500	A3	20030731		
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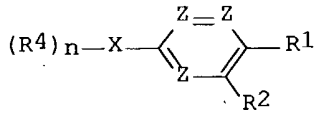
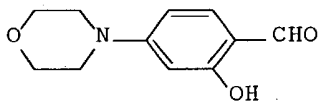
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2001088432	A5	20020322	AU 2001-88432	20010828
	US 2002165218	A1	20021107	US 2001-941897	20010828
	EP 1351946	A2	20031015	EP 2001-968164	20010828
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
PRAI	US 2000-229899P	P	20000901		
	WO 2001-US26709	W	20010828		

OS MARPAT 136:247591
GI



I



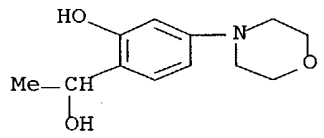
II

AB Compds. that inhibit DNA-dependent protein kinase, I [n = 0-4; X = (un)substituted 4-7 membered aliphatic ring containing 0-3 heteroatoms consisting of N, O and S (X = morpholinyl preferred); Z = independently N or CR3; R3 = independently H, halo, CHO, alkoxy, etc.; R1 = H, (un)substituted alkyl, cycloalkyl, CO, NO2, etc.; R2 = H, (un)substituted alkyl, carbamoyl, alkoxy, sulfamyl, etc.; with provision when X = morpholinyl, R2 and R4 and R3 = H at each occurrence, then R1 is different from COMe, phenylalkene, and NO2; and with the provision that when X = morpholinyl, R4 = H and Z = N at each occurrence, then R1 and R2 when taken together is different from triazole], were prepared

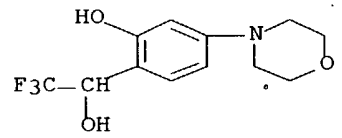
and compns. of I with other antineoplastic agents are claimed for use in cancer treatment therapy. Thus, II was prepared in 23% yield via formylation of 3-(4-morpholinyl)phenol. II demonstrated an IC50 value of 400 nM in DNA-PK assay. Preliminary results of animal tumor model studies indicate II enhanced the tumoristatic effect of total body irradiation (using 100-500 rad γ-radiation, II delayed tumor growth 1.2 to 1.8-fold relative to animals receiving radiation only).

IT **404011-14-9P 404011-15-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(intermediate; preparation of arylmorpholines as inhibitors of DNA-dependent
protein kinase for cancer treatment)

RN 404011-14-9 CAPLUS
CN Benzenemethanol, 2-hydroxy-α-methyl-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)

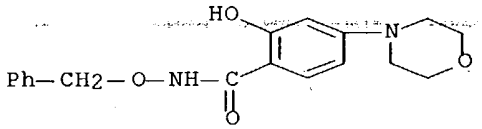


RN 404011-15-0 CAPLUS
CN Benzenemethanol, 2-hydroxy-4-(4-morpholinyl)-α-(trifluoromethyl)- (9CI) (CA INDEX NAME)

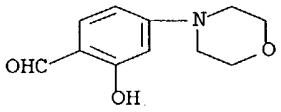


IT **404011-22-9**
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of arylmorpholines as inhibitors of DNA-dependent protein
kinase for cancer treatment)

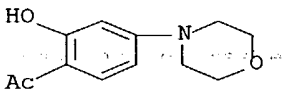
RN 404011-22-9 CAPLUS
CN Benzamide, 2-hydroxy-4-(4-morpholinyl)-N-(phenylmethoxy)- (9CI) (CA INDEX
NAME)



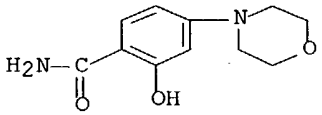
IT **70362-07-1P 404009-40-1P**
RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(target compound; preparation of arylmorpholines as inhibitors of DNA-dependent protein kinase for cancer treatment)
RN 70362-07-1 CAPLUS
CN Benzaldehyde, 2-hydroxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



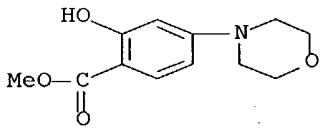
RN 404009-40-1 CAPLUS
CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



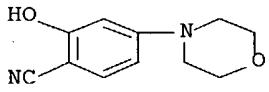
IT **37893-38-2P 207850-94-0P 404009-32-1P**
404009-73-0P 404009-98-9P 404010-21-5P
404010-32-8P 404010-44-2P 404010-52-2P
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(target compound; preparation of arylmorpholines as inhibitors of DNA-dependent protein kinase for cancer treatment)
RN 37893-38-2 CAPLUS
CN Benzamide, 2-hydroxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



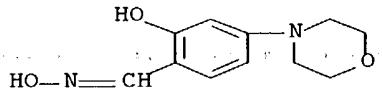
RN 207850-94-0 CAPLUS
CN Benzoic acid, 2-hydroxy-4-(4-morpholinyl)-, methyl ester (9CI) (CA INDEX NAME)



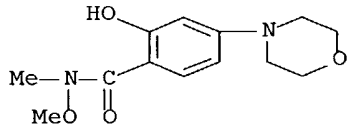
RN 404009-32-1 CAPLUS
CN Benzonitrile, 2-hydroxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



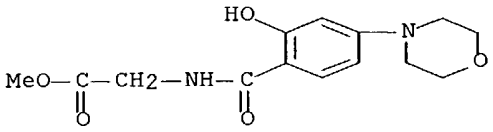
RN 404009-73-0 CAPLUS
CN Benzaldehyde, 2-hydroxy-4-(4-morpholinyl)-, oxime (9CI) (CA INDEX NAME)



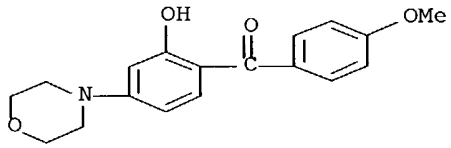
RN 404009-98-9 CAPLUS
CN Benzamide, 2-hydroxy-N-methoxy-N-methyl-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



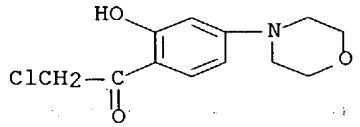
RN 404010-21-5 CAPLUS
CN Glycine, N-[2-hydroxy-4-(4-morpholinyl)benzoyl]-, methyl ester (9CI) (CA INDEX NAME)



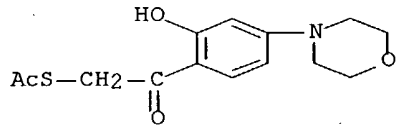
RN 404010-32-8 CAPLUS
CN Methanone, [2-hydroxy-4-(4-morpholinyl)phenyl](4-methoxyphenyl)- (9CI) (CA INDEX NAME)



RN 404010-44-2 CAPLUS
CN Ethanone, 2-chloro-1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



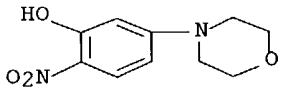
RN 404010-52-2 CAPLUS
CN Ethanethioic acid, S-[2-[2-hydroxy-4-(4-morpholinyl)phenyl]-2-oxoethyl] ester (9CI) (CA INDEX NAME)



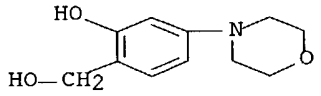
IT **175135-19-0P 404009-17-2P 404009-36-5P**
404009-42-3P 404009-44-5P 404009-46-7P
404009-48-9P 404009-75-2P 404009-86-5P
404009-88-7P 404009-90-1P 404009-92-3P
404009-94-5P 404009-96-7P 404010-00-0P

404010-02-2P 404010-04-4P 404010-06-6P
404010-08-8P 404010-10-2P 404010-12-4P
404010-14-6P 404010-16-8P 404010-18-0P
404010-23-7P 404010-25-9P 404010-29-3P
404010-30-6P 404010-34-0P 404010-36-2P
404010-38-4P 404010-40-8P 404010-42-0P
404010-43-1P 404010-45-3P 404010-46-4P
404010-47-5P 404010-49-7P 404010-50-0P
404010-51-1P 404010-53-3P 404011-13-8P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(target compound; preparation of arylmorpholines as inhibitors of DNA-dependent protein kinase for cancer treatment)

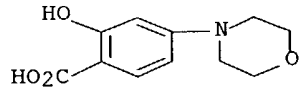
RN 175135-19-0 CAPLUS
CN Phenol, 5-(4-morpholinyl)-2-nitro- (9CI) (CA INDEX NAME)



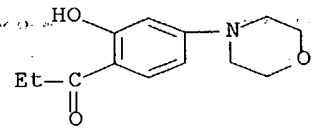
RN 404009-17-2 CAPLUS
CN Benzenemethanol, 2-hydroxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



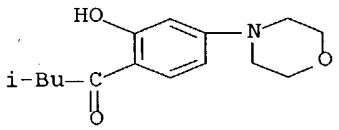
RN 404009-36-5 CAPLUS
CN Benzoic acid, 2-hydroxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



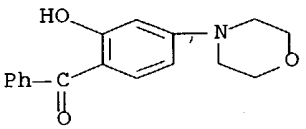
RN 404009-42-3 CAPLUS
CN 1-Propanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



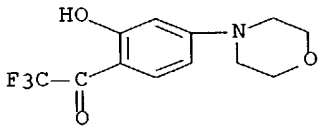
RN 404009-44-5 CAPLUS
CN 1-Butanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]-3-methyl- (9CI) (CA INDEX NAME)



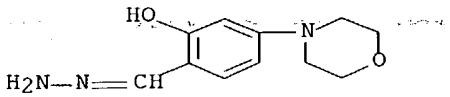
RN 404009-46-7 CAPLUS
CN Methanone, [2-hydroxy-4-(4-morpholinyl)phenyl]phenyl- (9CI) (CA INDEX NAME)



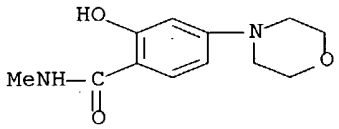
RN 404009-48-9 CAPLUS
CN Ethanone, 2,2,2-trifluoro-1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



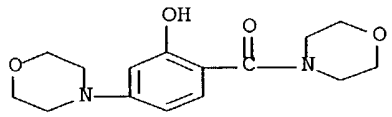
RN 404009-75-2 CAPLUS
CN Benzaldehyde, 2-hydroxy-4-(4-morpholinyl)-, hydrazone (9CI) (CA INDEX NAME)



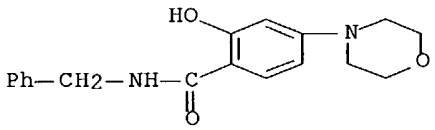
RN 404009-86-5 CAPLUS
CN Benzamide, 2-hydroxy-N-methyl-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



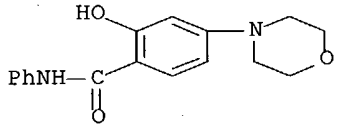
RN 404009-88-7 CAPLUS
CN Morpholine, 4-[2-hydroxy-4-(4-morpholinyl)benzoyl]- (9CI) (CA INDEX NAME)



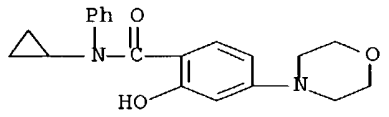
RN 404009-90-1 CAPLUS
CN Benzamide, 2-hydroxy-4-(4-morpholinyl)-N-(phenylmethyl)- (9CI) (CA INDEX NAME)



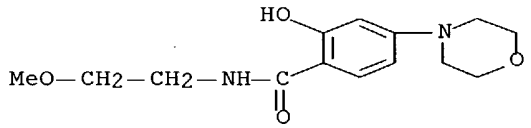
RN 404009-92-3 CAPLUS
CN Benzamide, 2-hydroxy-4-(4-morpholinyl)-N-phenyl- (9CI) (CA INDEX NAME)



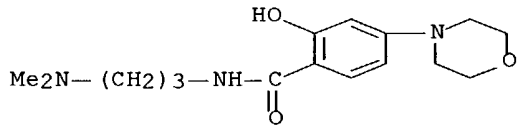
RN 404009-94-5 CAPLUS
CN Benzamide, N-cyclopropyl-2-hydroxy-4-(4-morpholinyl)-N-phenyl- (9CI) (CA
INDEX NAME)



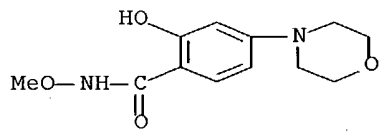
RN 404009-96-7 CAPLUS
CN Benzamide, 2-hydroxy-N-(2-methoxyethyl)-4-(4-morpholinyl)- (9CI) (CA
INDEX NAME)



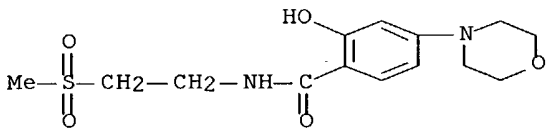
RN 404010-00-0 CAPLUS
CN Benzamide, N-[3-(dimethylamino)propyl]-2-hydroxy-4-(4-morpholinyl)-
(9CI)
(CA INDEX NAME)



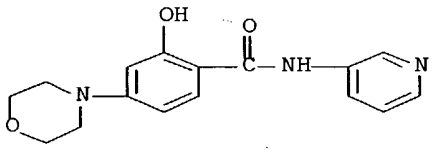
RN 404010-02-2 CAPLUS
CN Benzamide, 2-hydroxy-N-methoxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



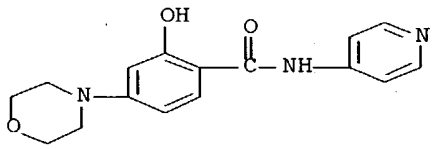
RN 404010-04-4 CAPLUS
CN Benzamide, 2-hydroxy-N-[2-(methylsulfonyl)ethyl]-4-(4-morpholinyl)- (9CI)
(CA INDEX NAME)



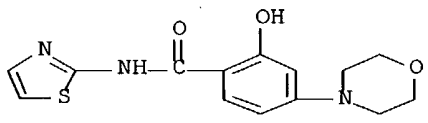
RN 404010-06-6 CAPLUS
CN Benzamide, 2-hydroxy-4-(4-morpholinyl)-N-3-pyridinyl- (9CI) (CA INDEX NAME)



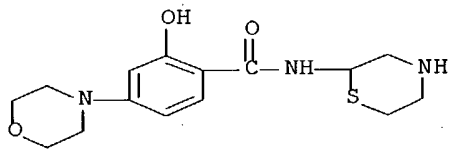
RN 404010-08-8 CAPLUS
CN Benzamide, 2-hydroxy-4-(4-morpholinyl)-N-4-pyridinyl- (9CI) (CA INDEX NAME)



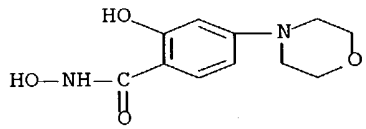
RN 404010-10-2 CAPLUS
CN Benzamide, 2-hydroxy-4-(4-morpholinyl)-N-2-thiazolyl- (9CI) (CA INDEX NAME)



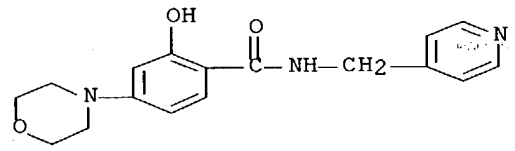
RN 404010-12-4 CAPLUS
CN Benzamide, 2-hydroxy-4-(4-morpholinyl)-N-2-thiomorpholinyl- (9CI) (CA INDEX NAME)



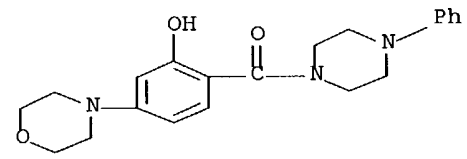
RN 404010-14-6 CAPLUS
CN Benzamide, N,2-dihydroxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



RN 404010-16-8 CAPLUS
CN Benzamide, 2-hydroxy-4-(4-morpholinyl)-N-(4-pyridinylmethyl)- (9CI) (CA INDEX NAME)

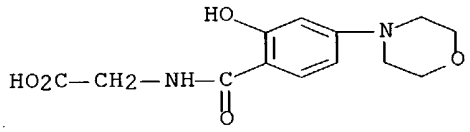


RN 404010-18-0 CAPLUS
CN Piperazine, 1-[2-hydroxy-4-(4-morpholinyl)benzoyl]-4-phenyl- (9CI) (CA INDEX NAME)

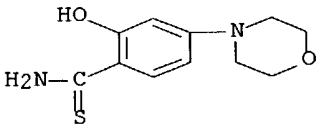


RN 404010-23-7 CAPLUS

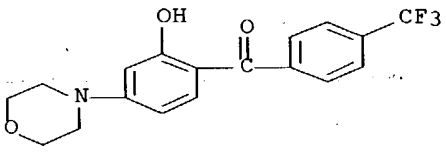
CN Glycine, N-[2-hydroxy-4-(4-morpholinyl)benzoyl]- (9CI) (CA INDEX NAME)



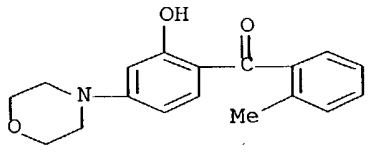
RN 404010-25-9 CAPLUS
CN Benzenecarbothioamide, 2-hydroxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



RN 404010-29-3 CAPLUS
CN Methanone, [2-hydroxy-4-(4-morpholinyl)phenyl][4-(trifluoromethyl)phenyl]-
(9CI) (CA INDEX NAME)

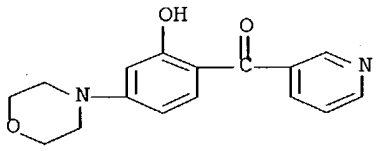


RN 404010-30-6 CAPLUS
CN Methanone, [2-hydroxy-4-(4-morpholinyl)phenyl](2-methylphenyl)- (9CI) (CA
INDEX NAME)

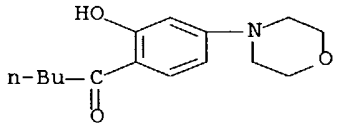


RN 404010-34-0 CAPLUS

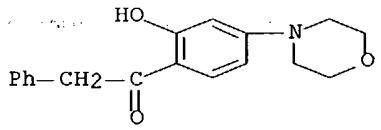
CN Methanone, [2-hydroxy-4-(4-morpholinyl)phenyl]-3-pyridinyl- (9CI) (CA INDEX NAME)



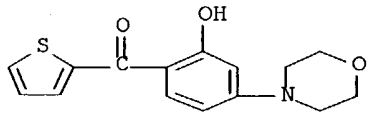
RN 404010-36-2 CAPLUS
CN 1-Pentanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



RN 404010-38-4 CAPLUS
CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]-2-phenyl- (9CI) (CA INDEX NAME)

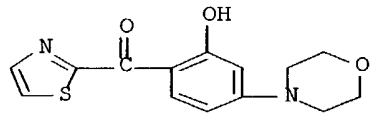


RN 404010-40-8 CAPLUS
CN Methanone, [2-hydroxy-4-(4-morpholinyl)phenyl]-2-thienyl- (9CI) (CA INDEX NAME)

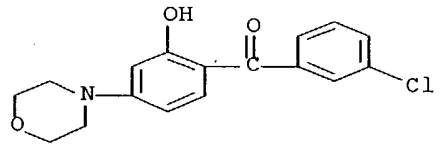


RN 404010-42-0 CAPLUS

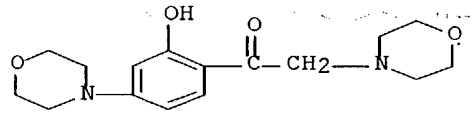
CN Methanone, [2-hydroxy-4-(4-morpholinyl)phenyl]-2-thiazolyl- (9CI) (CA INDEX NAME)



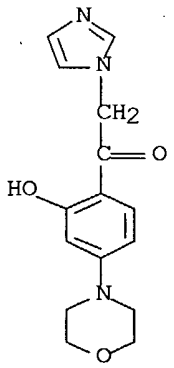
RN 404010-43-1 CAPLUS
CN Methanone, (3-chlorophenyl)[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA
INDEX NAME)



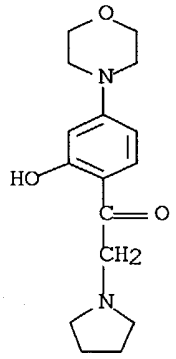
RN 404010-45-3 CAPLUS
CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]-2-(4-morpholinyl)- (9CI) (CA INDEX NAME)



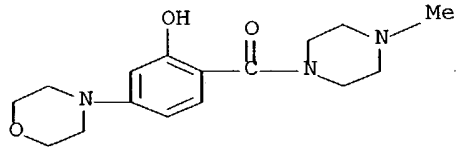
RN 404010-46-4 CAPLUS
CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]-2-(1H-imidazol-1-yl)- (9CI) (CA INDEX NAME)



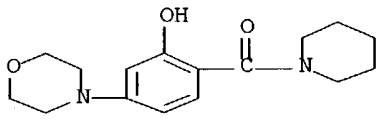
RN 404010-47-5 CAPLUS
CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]-2-(1-pyrrolidinyl)-(9CI)
(CA INDEX NAME)



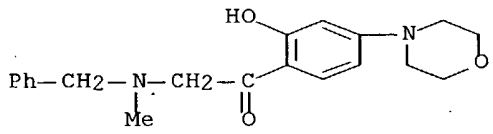
RN 404010-49-7 CAPLUS
CN Piperazine, 1-[2-hydroxy-4-(4-morpholinyl)benzoyl]-4-methyl- (9CI) (CA INDEX NAME)



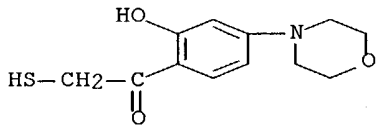
RN 404010-50-0 CAPLUS
CN Piperidine, 1-[2-hydroxy-4-(4-morpholinyl)benzoyl]- (9CI) (CA INDEX NAME)



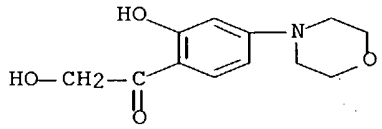
RN 404010-51-1 CAPLUS
CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]-2-[methyl(phenylmethyl)amino]- (9CI) (CA INDEX NAME)



RN 404010-53-3 CAPLUS
CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]-2-mercapto- (9CI) (CA INDEX NAME)



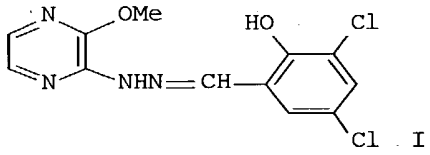
RN 404011-13-8 CAPLUS
CN Ethanone, 2-hydroxy-1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



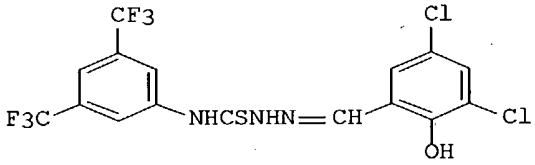
L7 ANSWER 14 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:895648 CAPLUS Full-text
DN 136:19729
TI Hydrazone, hydrazine and thiosemicarbazone derivatives as antifungal agents
IN Mei, Xiaodan; Wang, Peng; Caracoti, Andrei; Mingo, Pamela; Boyd, Vincent; Murray, Robert; Sisti, Nicholas J.; Xiang, Yi Bin; Zhu, Shuhao; Wobbe, C. Richard; Moore, Daniel
PA Anadys Pharmaceuticals, Inc., USA
SO U.S., 14 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 6329378	B1	20011211	US 2000-501758	20000210
PRAI US 1999-119387P	P	19990210		
US 1999-141117P	P	19990625		

OS MARPAT 136:19729
GI



I



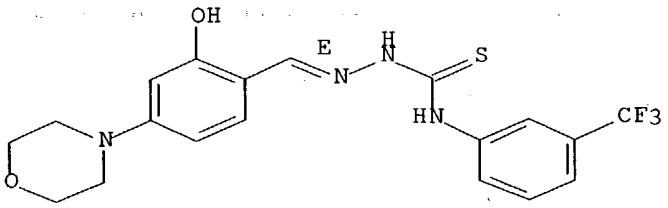
II

AB Title compds. such as I and (E)-II were prepared as antifungal agents. Thus, I was prepared in 3 steps starting from 2,3-dichloropyrazine and proceeding via 2-chloro-3-methoxypyrazine and 2-hydrazinyl-3-methoxypyrazine, the latter then being reacted with 3,5-dichlorosalicylaldehyde. I showed min. inhibitory concns. of 1, 1, and 2 μg/mL against Candida albicans, Saccharomyces cerevisiae, and Aspergillus nidulans, resp.

IT **378781-00-1P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(hydrazone, hydrazine and thiosemicarbazone derivs. as antifungal agents)

RN 378781-00-1 CAPLUS
CN Hydrazinecarbothioamide, 2-[[2-hydroxy-4-(4-morpholinyl)phenyl]methylene]-
N-[3-(trifluoromethyl)phenyl]-, (2E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

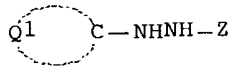


RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 15 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:822984 CAPLUS Full-text
DN 134:11498
TI Heat-developable color photographic material providing high-quality images
within short development time
IN Yamada, Makoto
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 49 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2000321738	A2	20001124	JP 1999-132027	19990512
PRAI JP 1999-132027		19990512		

OS MARPAT 134:11498
GI

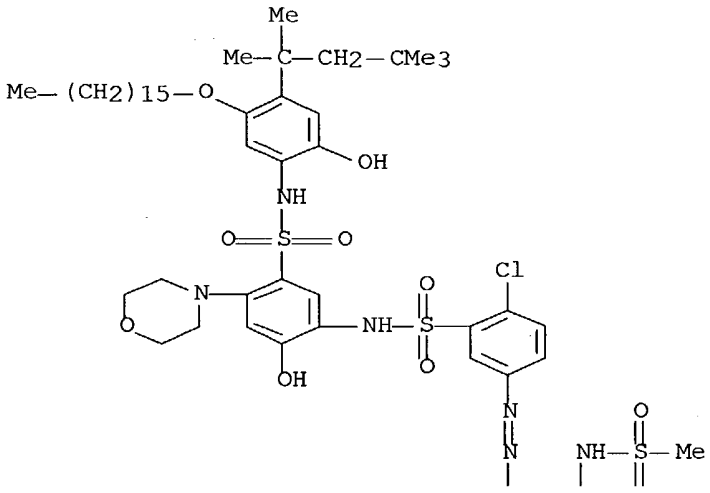


I

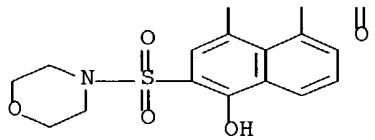
AB The material has a support and a recording layer containing a photosensitive Ag halide, a binder, hydrazine I (Z = carbamoyl, acyl, alkoxycarbonyl, aryloxycarbonyl, sulfonyl, sulfamoyl; Q1 = atoms required for forming an unsatd. ring with C), a colorless compound which forms and releases a diffusible dye by coupling reaction with an oxidation product of I, and a dye-providing compound [(DYE)pX]qY (DYE = dye group, dye precursor group; Y = group forming the difference of dye component diffusivity due to reduction of Ag halide latent images; X = direct bond, bonding group; p ≥1; q = 1, 2). It showed small dependency on processing temperature and improved raw stock stability.

IT **178332-17-7**
RL: TEM (Technical or engineered material use); USES (Uses)
(magenta dye-donating compound; heat-developable color photog. material
providing high-quality images within short development time)
RN 178332-17-7 CAPLUS
CN Benzenesulfonamide, 5-[[[2-chloro-5-[[4-hydroxy-8-[(methylsulfonyl)amino]-
3-(4-morpholinylsulfonyl)-1-naphthalenyl]azo]phenyl]sulfonyl]amino]-N-[5-
(hexadecyloxy)-2-hydroxy-4-(1,1,3,3-tetramethylbutyl)phenyl]-4-hydroxy-2-
(4-morpholinyl)- (9CI) (CA INDEX NAME)

PAGE 1-A



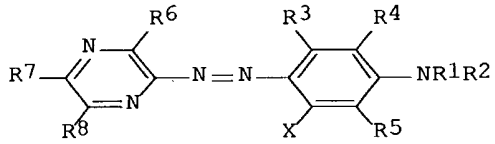
PAGE 2-A



L7 ANSWER 16 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:137153 CAPLUS Full-text
DN 132:187702
TI Optical recording medium with excellent light-resistance and storage stability
IN Ueno, Yasunobu; Sato, Tsutomu; Tomura, Tatsuya; Sasa, Noboru; Fukuda, Hiroaki; Azuma, Yasuhiro
PA Ricoh Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 15 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2000062321	A2	20000229	JP 1998-247865	19980818
PRAI JP 1998-247865		19980818		

OS MARPAT 132:187702
GI

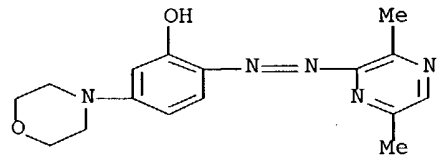


I

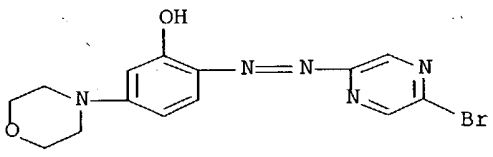
AB The title optical recording medium contains at least 1 kind of an azo metal chelate compound comprised of 2- or 3-valent metal (Cr, Fe, Co, Ni or Cu) and azo compound represented by general formula I (X = OH, CO2H, amido, sulfo, sulfonamide; R1, R2 = H, alkyl, phenyl; R3-8 = H, halo, nitro, cyano, OH, carboxy, alkyl, Ph, alkoxy, aryloxy, carbonyl, acyl, alkoxycarbonyl, aryloxycarbonyl, alkenyl, amino). The optical recording medium contain a reflective layer made of Au, Ag, Al, Au alloy, Ag alloy, or Al alloy. The optical recording medium is suitable as a CD-R which is readable by a DVD-R disk system.

IT **259266-56-3D**, transition metal complex **259266-66-5D**, transition metal complex
RL: DEV (Device component use); USES (Uses)
(azo metal chelate in optical recording medium with excellent light-resistance and storage stability)

RN 259266-56-3 CAPLUS
CN Phenol, 2-[(3,6-dimethylpyrazinyl)azo]-5-(4-morpholinyl)- (9CI) (CA INDEX NAME)



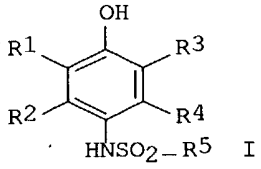
RN 259266-66-5 CAPLUS
CN Phenol, 2-[(5-bromopyrazinyl)azo]-5-(4-morpholinyl)- (9CI) (CA INDEX NAME)


OH
N
N
N
N
N
O
Br

L7 ANSWER 17 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:132998 CAPLUS Full-text
DN 132:173439
TI Heat development color photographic material containing electron transmitting agent
IN Nakagawa, Hajime
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 48 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000056441	A2	20000225	JP 1998-231114	19980804
	US 6177227	B1	20010123	US 1999-366652	19990804
PRAI	JP 1998-231114	A	19980804		

OS MARPAT 132:173439
GI



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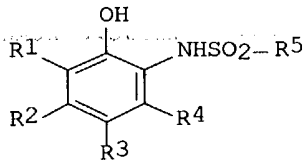


II

AB The title photog. material, comprising a support coated with ≥2 Ag halide emulsion layers which are different in color sensitivity from each other and ≥1 non-photosensitive layer, contains dye-donating compds. and ≥1 diffusive electron-transmitting agent I or II [R1-4 = H, halo, CN or alkyl, aryl, heterocyclic group, alkoxy, aryloxy, alkylthio, arylthio, alkylcarbonyl, arylcarbonyl, alkylsulfonyl, arylsulfonyl, alkylcarbonamide, arylcarbonamide, alkylsulfonamide, arylsulfonamide, alkylcarbonyloxy, arylcarbonyloxy, carbamoyl, alkylcarbamoyl, arylcarbamoyl, alkoxycarbonyl, aryloxycarbonyl, sulfamoyl, alkylsulfamoyl, arylsulfamoyl, ureido or urethane group (these groups have a C number of ≤4 or a I/O value of ≥1); R5 = alkyl, aryl, heterocyclic group, alkylamino, arylamino, heterocyclic amino] in the emulsion layers or non-photosensitive layer and a compound reactive with

the oxidized product of the electron-transmitting agent in the non-photosensitive layer. An imaging method is also claimed, in which the material is heat-developed to release or form a diffusive dye and the dye is transferred to a dye-fixing element. The material provides high quality color images with improved discrimination upon heat development in a short time and shows good color separation

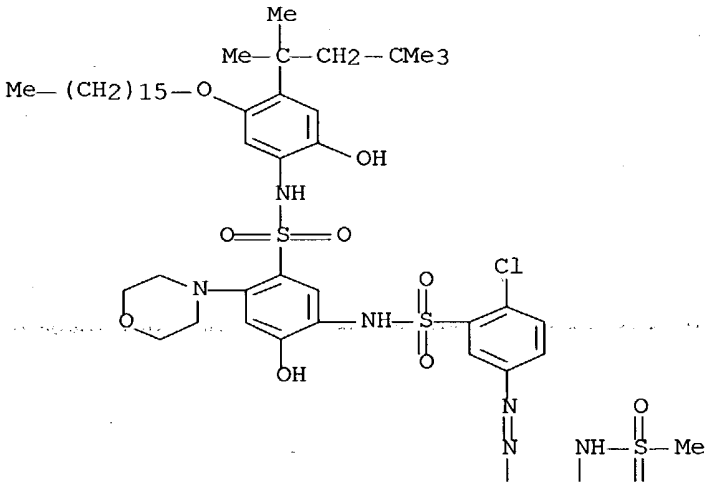
IT **178332-17-7**

RL: DEV (Device component use); USES (Uses)
(dye-donating compound; heat-developable color photog. material containing
diffusive electron-transmitting agent)

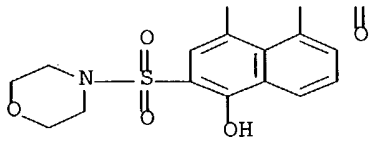
RN 178332-17-7 CAPLUS

CN Benzenesulfonamide, 5-[[[2-chloro-5-[[4-hydroxy-8-[(methylsulfonyl)amino]-3-(4-morpholinylsulfonyl)-1-naphthalenyl]azo]phenyl]sulfonyl]amino]-N-[5-(hexadecyloxy)-2-hydroxy-4-(1,1,3,3-tetramethylbutyl)phenyl]-4-hydroxy-2-(4-morpholinyl)- (9CI) (CA INDEX NAME)

PAGE 1-A



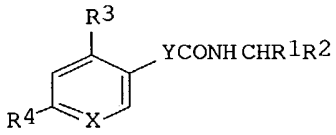
PAGE 2-A



L7 ANSWER 18 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:62598 CAPLUS Full-text
DN 132:107708
TI Preparation of alkyl arylureas and arylacetamides with cholesterol acyl transferase inhibition effects
IN Yagisawa, Hiroaki; Naito, Satoru; Takamura, Minoru; Koga, Sadaichiro
PA Sankyo Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 67 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2000026294	A2	20000125	JP 1999-124103	19990430
PRAI JP 1998-124386		19980507		

OS MARPAT 132:107708
GI



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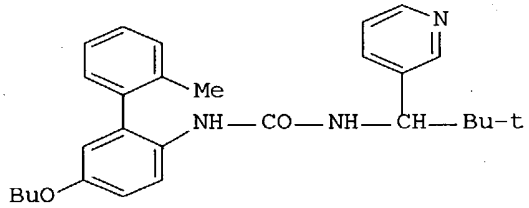
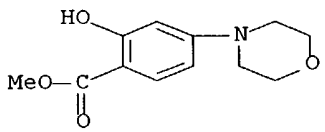


II

AB Title compds. [I; X = CH, N; Y = methylene and imino; R1 = H, C1-C8alkyl; R2 = 6 member heterocyclic; R3 = C6-C10 aryl; R4 = H, halogen, C1-C8 alkyl, C1-C8 alkoxy, C1-C8 alkylthio, C1-C10 alkylamino; 3-6 member cyclicamino], pharmaceutical acceptable salts are prepared and have cholesterol acyl transferase inhibitory effects which offer as remedy agents or the preventive agents of various diseases which originate in the ACAT inhibitory effect. Thus, the title compound II was prepared

IT **207850-94-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)(preparation of alkyl arylureas and arylacetamides with cholesterol acyl transferase inhibition effects)

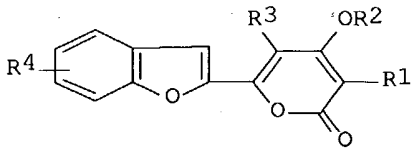
RN 207850-94-0 CAPLUS
CN Benzoic acid, 2-hydroxy-4-(4-morpholinyl)-, methyl ester (9CI) (CA INDEX NAME)



L7 ANSWER 19 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:595169 CAPLUS Full-text
DN 131:228641
TI Preparation of benzofurylpyrone derivatives and effects on lipid metabolism
IN Naniwa, Yoshimitsu; Imai, Hiroshi; Ida, Tomohide; Muratani, Emiko; Kitai, Kazuo; Sugimoto, Yoshinori; Kosugi, Tomomi; Takeuchi, Akiko; Watanabe, Kunihito; Tomiyama, Takami; Takeuchi, Tomio; Hamada, Masa
PA Teijin Limited, Japan; Microbial Chemistry Research Foundation
SO PCT Int. Appl., 176 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9946262	A1	19990916	WO 1999-JP1225	19990312
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2323456	AA	19990916	CA 1999-2323456	19990312
	AU 9932773	A1	19990927	AU 1999-32773	19990312
	AU 756965	B2	20030130		
	BR 9908706	A	20001121	BR 1999-8706	19990312
	EP 1063235	A1	20001227	EP 1999-939191	19990312
	EP 1063235	B1	20040512		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	TR 200002642	T2	20010122	TR 2000-200002642	19990312
	EE 200000504	A	20020215	EE 2000-504	19990312
	NZ 506802	A	20021126	NZ 1999-506802	19990312
	RU 2199536	C2	20030227	RU 2000-125690	19990312
	AT 266659	E	20040515	AT 1999-939191	19990312
	NO 2000004517	A	20000911	NO 2000-4517	20000911
	US 6589984	B1	20030708	US 2000-646005	20000911
	HR 2000000600	A1	20010630	HR 2000-600	20000912
	BG 104761	A	20010831	BG 2000-104761	20000912
	US 2003186976	A1	20031002	US 2003-435746	20030512
PRAI	JP 1998-61356	A	19980312		
	WO 1999-JP1225	W	19990312		
	US 2000-646005	A3	20000911		

OS MARPAT 131:228641
GI



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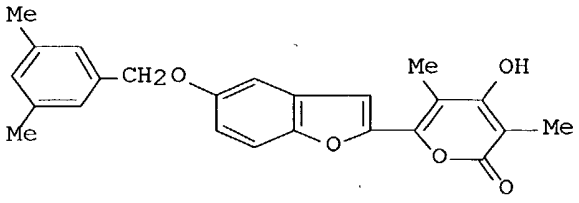


II

AB Title compds. [I; wherein R1 represents hydrogen or C1-5 alkyl; R2 represents hydrogen, -CO-R5 or SO2R6; R3 represents hydrogen, C1-5 alkyl, etc.; and R4 is a substituent of a definite structure attached to the 4-, 5-, 6- or 7-position of the benzofuran ring] and salts thereof are prepared and tested as remedies for hyperglyceridemia, lipid metabolism improving agents, preventives/remedies for arteriosclerosis, etc. Thus, the title compound II was prepared

IT **70362-07-1P**

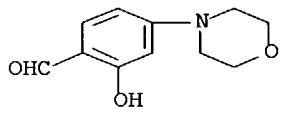
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)

(preparation of benzofurylpyrones and effects on lipid metabolism)

RN 70362-07-1 CAPLUS

CN Benzaldehyde, 2-hydroxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)

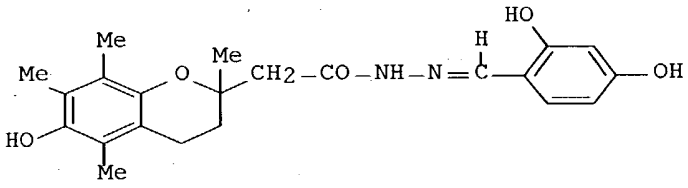


RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 20 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:253739 CAPLUS Full-text
DN 130:325088
TI Preparation of acylhydrazone derivatives as Maillard reaction inhibitors and active oxygen scavengers
IN Inoue, Hitoshi; Horigome, Masato; Kinoshita, Nobuhiro; Shibayama, Toshie
PA Nisshin Flour Milling Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 80 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

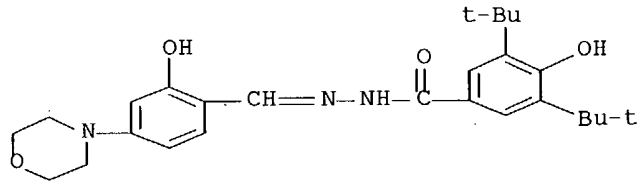
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 11106371	A2	19990420	JP 1998-177222	19980624
PRAI JP 1997-179754		19970704		

OS MARPAT 130:325088
GI

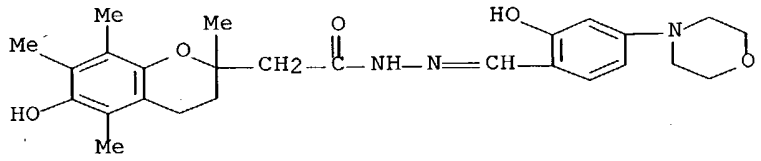


I

AB The title compds. XWY [X = benzene ring, chroman ring, etc.; Y = (un)substituted Ph, etc.; W = CONHN:CH, etc.] are prepared The title compound I in vitro showed IC50 of 4.2 μM against the Maillard reaction.
IT **223721-43-5P 223722-00-7P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of acylhydrazone derivs. as Maillard reaction inhibitors and active oxygen scavengers)
RN 223721-43-5 CAPLUS
CN Benzoic acid, 3,5-bis(1,1-dimethylethyl)-4-hydroxy-, [[2-hydroxy-4-(4-morpholinyl)phenyl]methylene]hydrazide (9CI) (CA INDEX NAME)



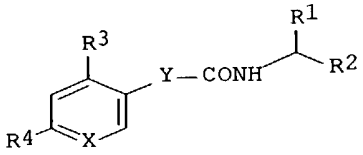
RN 223722-00-7 CAPLUS
CN 2H-1-Benzopyran-2-acetic acid, 3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-,
[[2-hydroxy-4-(4-morpholinyl)phenyl]methylene]hydrazide (9CI) (CA INDEX NAME)



L7 ANSWER 21 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1998:341545 CAPLUS Full-text
DN 129:27897
TI Preparation of arylureas or arylmethylcarbamoyl derivatives as acyl-CoA-cholesterol acyltransferase inhibitors
IN Yanagisawa, Hiroaki; Naito, Satoru; Takamura, Makoto; Koga, Teiichiro
PA Sankyo Co., Ltd., Japan
SO PCT Int. Appl., 157 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9821185	A1	19980522	WO 1997-JP4053	19971107
	W: AU, CA, CN, CZ, HU, ID, IL, KR, MX, NO, NZ, RU, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9748850	A1	19980603	AU 1997-48850	19971107
	JP 10182608	A2	19980707	JP 1997-305109	19971107
PRAI	JP 1996-296870		19961108		
	WO 1997-JP4053		19971107		

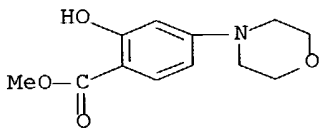
OS MARPAT 129:27897
GI



I

AB The title compds. [I; X = CH or N; Y = CH2 or imino; R1 = H or alkyl; R2 = N-containing heteroaryl; R3 = (un)substituted aryl; R4 = H, halo, alkyl, alkoxy, alkylthio, aryl, aryloxy, arylthio, aralkyl, aralkyloxy, aralkylthio, dialkylamino, cyclic amino, etc.] or pharmacol. acceptable salts thereof are prepared I, possessing acyl-CoA-cholesterol acyltransferase (ACAT) inhibitory activity, are useful for prevention and treatment of hyperlipemia, atherosclerosis, and related diseases. Thus, 2-(2-methylphenyl)-4-phenylbenzoic acid (preparation given) was reacted with 3-(1-amino-2,2-dimethylpropyl)pyridine in the presence of diphenylphosphorylazide and Et3N to give 64% I (Y = NH, R1 = tert-Bu, R2 = 3-pyridyl, R3 = o-MeC6H4, R4 = Ph, X = CH) (II), which showed IC50 of 104 ng/mL against ACAT. A hard capsule formulation containing II was also prepared

IT **207850-94-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation of arylureas or arylmethylcarbamoyl derivs. as acyl-CoA-cholesterol acyltransferase inhibitors)
RN 207850-94-0 CAPLUS
CN Benzoic acid, 2-hydroxy-4-(4-morpholinyl)-, methyl ester (9CI) (CA INDEX NAME)



RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

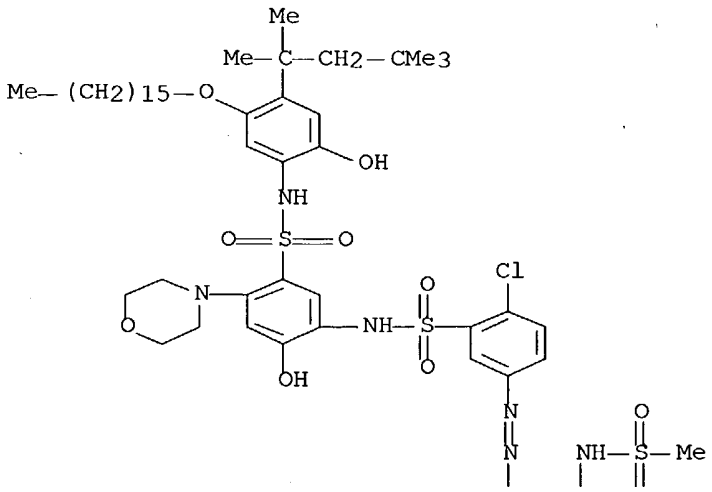
L7 ANSWER 22 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1998:228915 CAPLUS Full-text
DN 128:328711
TI Method for color imaging by scanning exposure and thermal development
IN Koide, Tomoyuki
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 35 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 10097042	A2	19980414	JP 1996-251959	19960924
PRAI JP 1996-251959		19960924		

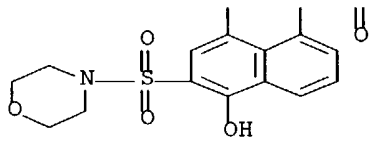
AB A color imaging method comprises (1) scanning exposure of a thermal development color photosensitive material possessing on a support, a combination of at least 3 photosensitive layers each of which contains a dye-providing compound releasing or forming a dye having color tone different from those in other layers and having maximum spectral sensitivity in visible region at wavelength different from those in other layers (transmission d. of the photosensitive material being ≥0.5 in the visible region at the photosensitive side), by visible beam modulated according to image information and (2) thermal development of the photosensitive material. The scanning pitch by visible beam is smaller than effective diameter of the beam and also overlapping width between lusters (loci of light beams) is from ≥5% to ≤95% of the effective diameter of the beam. The thermal development color photosensitive material contains a dye-trapping agent. The use of this thermal development color photosensitive material, which is scanning-exposed by visible beam modulated by computer, shortens exposure time and improves image quality and gives color images of excellent sharpness and degree of resolution and high quality on a receptor material.

IT **178332-17-7**
RL: TEM (Technical or engineered material use); USES (Uses)
(method for color imaging by scanning exposure using computer-modulated
beams and thermal development)
RN 178332-17-7 CAPLUS
CN Benzenesulfonamide, 5-[[[2-chloro-5-[[4-hydroxy-8-[(methylsulfonyl)amino]-
3-(4-morpholinylsulfonyl)-1-naphthalenyl]azo]phenyl]sulfonyl]amino]-N-[5-
(hexadecyloxy)-2-hydroxy-4-(1,1,3,3-tetramethylbutyl)phenyl]-4-hydroxy-2-
(4-morpholinyl)- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



L7 ANSWER 23 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1997:326342 CAPLUS Full-text
DN 126:299650
TI Thermal processing type color photographic material comprising sensitized
silver chlorobromoiodide emulsion
IN Yokogawa, Takuya
PA Fuji Photo Film Co Ltd, Japan
SO Jpn. Kokai Tokkyo Koho, 30 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 2

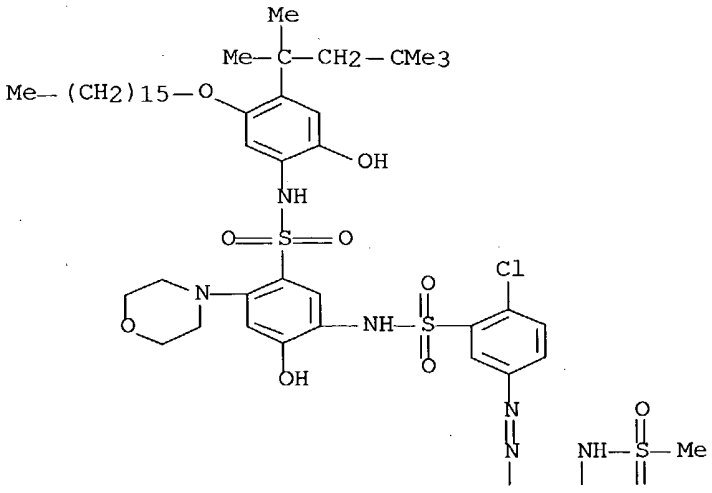
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09061978	A2	19970307	JP 1995-235939	19950823
	JP 3563173	B2	20040908		
	US 5716775	A	19980210	US 1996-649443	19960517
PRAI	JP 1995-119876	A	19950518		
	JP 1995-235939	A	19950823		

AB Claimed photog. material having a light-sensitive emulsion, binder, dye-donor on the support utilizes a silver halide emulsion comprising Ag(Br,Cl,I) grains (AgI ≥0.1 mol.% in the internal phase, and AgCl ≥ 10 mol.%) spectrally sensitized prior to chemical sensitization, and chemical sensitized by a decomposed product of nucleic acid. It is not sensitive to applied pressure, in spite of the highly sensitive multistructural silver halide crystals. The dye donor is the redox compound of 2-sulfoamino-derivs. of p-aminophenol or hydroquinone. Thus, the emulsion is suitably applied to a dye transfer color-imaging unit of multilayer photog. material/image receiving sheet utilizing ZnO-chelate alkali-precursor.

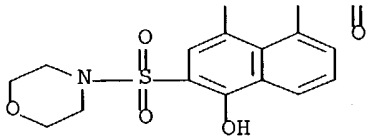
IT **178332-17-7**
RL: DEV (Device component use); USES (Uses)
(magenta coupler; thermal processing type color photog. material comprising silver chlorobromoiodide emulsion sensitized by decomposed nucleic acid)

RN 178332-17-7 CAPLUS
CN Benzenesulfonamide, 5-[[[2-chloro-5-[[4-hydroxy-8-[(methylsulfonyl)amino]-3-(4-morpholinylsulfonyl)-1-naphthalenyl]azo]phenyl]sulfonyl]amino]-N-[5-(hexadecyloxy)-2-hydroxy-4-(1,1,3,3-tetramethylbutyl)phenyl]-4-hydroxy-2-(4-morpholinyl)- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



L7 ANSWER 24 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1996:404444 CAPLUS Full-text
DN 125:72030
TI Thermally developable color photosensitive material containing silver halide emulsion
IN Uehara, Yoshiki
PA Fuji Photo Film Co Ltd, Japan
SO Jpn. Kokai Tokkyo Koho, 40 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

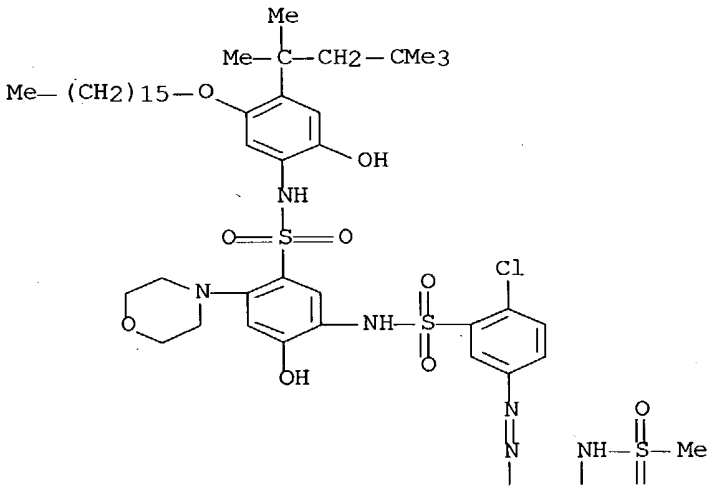
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 08062805	A2	19960308	JP 1994-219569	19940823
PRAI JP 1994-219569		19940823		

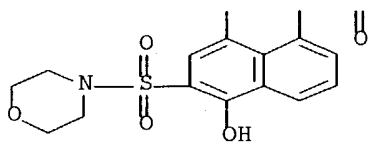
AB The material comprises (1) a light-sensitive Ag halide emulsion containing ≥0.1 AgI in the grains, (2) a binder, and (3) a dye precursor releasing a diffusible dye corresponding to the Ag development. The dye precursor may comprise [(Dye)pX]qY (Dye = dye moiety; Y = diffusivity-controlling group; X = bond, linking group; p >1; q = 1,2). The material shows high sensitivity and pressure resistance.

IT **178332-17-7**
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(diffusion dye precursor; thermally developable color photosensitive material containing silver halide emulsion)

RN 178332-17-7 CAPLUS
CN Benzenesulfonamide, 5-[[[2-chloro-5-[[4-hydroxy-8-[(methylsulfonyl)amino]-3-(4-morpholinylsulfonyl)-1-naphthalenyl]azo]phenyl]sulfonyl]amino]-N-[5-(hexadecyloxy)-2-hydroxy-4-(1,1,3,3-tetramethylbutyl)phenyl]-4-hydroxy-2-(4-morpholinyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

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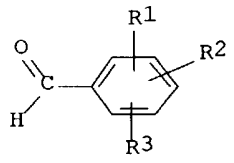
L7 ANSWER 25 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1996:150310 CAPLUS Full-text
DN 124:206893
TI Use of benzaldehydes to mark hydrocarbons and method for their determination
IN Kraeh, Claudia; Schloesser, Ulrike; Beck, Karin Heidrun; Mayer, Udo
PA BASF A.-G., Germany
SO Ger. Offen., 13 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 4424712	A1	19960118	DE 1994-4424712	19940713
	WO 9602613	A1	19960201	WO 1995-EP2558	19950703
	W: AU, BG, BR, BY, CA, CN, CZ, FI, HU, JP, KR, KZ, MX, NO, NZ, PL, RU, SG, SK, UA, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	CA 2195019	AA	19960201	CA 1995-2195019	19950703
	AU 9529263	A1	19960216	AU 1995-29263	19950703
	AU 686838	B2	19980212		
	EP 770119	A1	19970502	EP 1995-924960	19950703
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	CN 1155898	A	19970730	CN 1995-194718	19950703
	HU 76687	A2	19971028	HU 1997-62	19950703
	JP 10502693	T2	19980310	JP 1995-504633	19950703
	BR 9508401	A	19980519	BR 1995-8401	19950703
	NO 9700126	A	19970310	NO 1997-126	19970110
	FI 9700108	A	19970312	FI 1997-108	19970110
PRAI	DE 1994-4424712		19940713		
	WO 1995-EP2558		19950703		

OS MARPAT 124:206893
GI

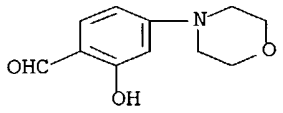


I

AB Benzaldehydes of formula I (where R1, R2, and R3 are H, hydroxide, C1-15 alkyl, C1-15 alkoxy, cyano, nitro, or a group of formula NR4R5 or COOR6, R4 is a substituted C1-15 alkyl or a rest of formula L-NX1-X2, where L is C2-8 alkylene and X1 and X2 independently C1-8 alkyl or forms with them a heterocyclic rest, and R6 is hydrogen, optionally substituted C1-15 alkyl or L-NX1-X2) are suitable for use as markers for hydrocarbons. The compds. are easily determined

IT **70362-07-1**
RL: ANT (Analyte); MOA (Modifier or additive use); ANST (Analytical

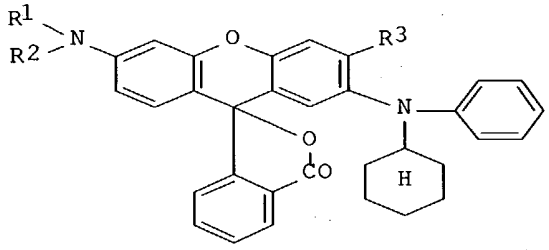
study); USES (Uses)
(marker; use of benzaldehydes to mark hydrocarbons and method for their
determination)
RN 70362-07-1 CAPLUS
CN Benzaldehyde, 2-hydroxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



L7 ANSWER 26 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1994:545415 CAPLUS Full-text
DN 121:145415
TI Recording material using fluoran compounds
IN Ootsuji, Atsuo; Nakatsuka, Masakatsu; Hasegawa, Kyoharu; Yoshikawa, Kazuyoshi
PA Mitsui Toatsu Chemicals, Japan
SO Jpn. Kokai Tokkyo Koho, 21 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 05278325	A2	19931026	JP 1992-76570	19920331
JP 3048274	B2	20000605		
PRAI JP 1992-76570		19920331		

GI

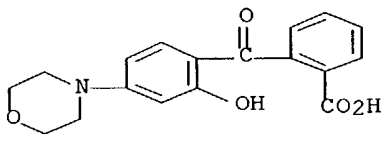


I

AB In the title recording material utilizing an electron donating color former and an electron accepting compound to give color by contacting them, the color former employs ≥1 fluoran compound I (R1, R2 = C1-12 alkyl, C3-12 alkoxy, C5-12 cycloalkyl; R and R2 may joint to form a 5-6-membered heterocycle with N; R3 = H, C1-4 alkyl). The recording material shows both good material and image storage stability.

IT **55165-07-6**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, electron donating color former from, for recording material)

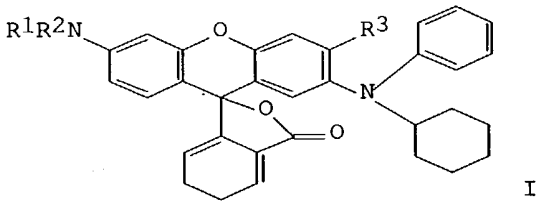
RN 55165-07-6 CAPLUS
CN Benzoic acid, 2-[2-hydroxy-4-(4-morpholinyl)benzoyl]- (9CI) (CA INDEX NAME)



L7 ANSWER 27 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1994:149009 CAPLUS Full-text
DN 120:149009
TI Fluoran compound for recording material
IN Ootsuji, Atsuo; Nakatsuka, Masakatsu
PA Mitsui Toatsu Chemicals, Japan
SO Jpn. Kokai Tokkyo Koho, 14 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 05247051	A2	19930924	JP 1992-324346	19921203
	JP 3137473	B2	20010219		
PRAI	JP 1991-327411	A1	19911211		

OS MARPAT 120:149009
GI

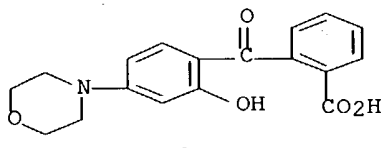


I

AB The fluoran compound consists of I (R1-2 = C1-12 alkyl, C3-12 alkoxyalkyl, C5-12 cycloalkyl, NR1R2 may form 5- or 6-membered heterocyclic group; R3 = C1-4 alkyl). The fluoran compound is useful for thermal or pressure-sensitive recording. The fluoran compound shows good red- or green-coloring.

IT **55165-07-6**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with cyclohexyldiphenylamine derivs. in preparation of fluoran
compds.)

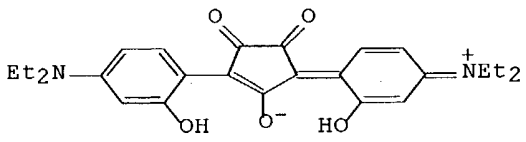
RN 55165-07-6 CAPLUS
CN Benzoic acid, 2-[2-hydroxy-4-(4-morpholinyl)benzoyl]- (9CI) (CA INDEX NAME)



L7 ANSWER 28 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1994:10535 CAPLUS Full-text
DN 120:10535
TI Infrared heating-type thermal transfer printing sheets
IN Murata, Jukichi; Ozawa, Tetsuo; Kawana, Makoto; Urano, Toshoshi
PA Mitsubishi Chemical Industries Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 05169839	A2	19930709	JP 1991-339070	19911220
PRAI JP 1991-339070		19911220		

OS MARPAT 120:10535
GI

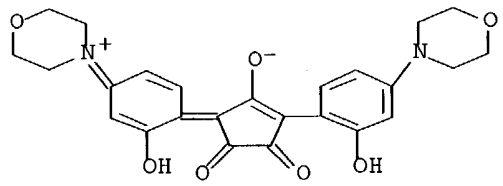


I

AB Transfer printing inks contain dyes and IR absorbers such as chroconium compds. Thus, a magenta ink contained I 2, 1,1,2-tricyano-2-(p-ethylbutylaminophenyl)ethylene 8, cellulose acetate (L-30) 10, and MEK 80 g.

IT **104055-69-8**
RL: USES (Uses)
(IR absorbers, in thermal transfer printing inks)

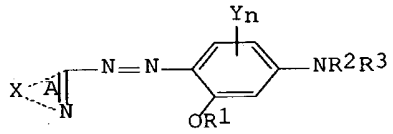
RN 104055-69-8 CAPLUS
CN Morpholinium, 4-[3-hydroxy-4-[2-hydroxy-3-[2-hydroxy-4-(4-morpholinyl)phenyl]-4,5-dioxo-2-cyclopenten-1-ylidene]-2,5-cyclohexadien-1-ylidene]-, inner salt (9CI) (CA INDEX NAME)



L7 ANSWER 29 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1991:585569 CAPLUS Full-text
DN 115:185569
TI Thermal-tranfer recording materials and image formation therewith
IN Komamura, Tawara; Miura, Akio; Ikehata, Yoriko
PA Konica Co., Japan
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 03114892	A2	19910516	JP 1989-252231	19890929
	JP 2893274	B2	19990517		
PRAI	JP 1989-252231		19890929		

OS MARPAT 115:185569
GI

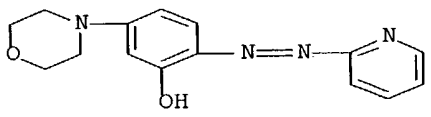


I

AB The title materials providing lightfast images with high color d. on chelating agent-treated receptors contain dyes I [X = group atoms needed for forming (un)substituted 5- or 6-membered ring with or without condensed ring; Y = halogen, alkyl, alkoxy; n = 0-2; R1 = H, alkyl; R2, R3 = H, alkyl, aryl, or R2R3 = 5- or 6-membered ring member]. An ink from 10 g I (A = 2-pyridyl; Y = R1 = H; R2 = R3 = Et), 15 g poly(vinyl butyral), and 200 mL MEK was coated on a PET film to 1.0 g/cm2 to give a thermal transfer medium providing magenta images with higher color d. and lightfastness than a control using 2-(2-hydroxyphenylazo)-4-methoxy-1- naphthol as the dye.

IT **136789-83-8**
RL: USES (Uses)
(dye, lightfast, for thermal transfer printing inks)

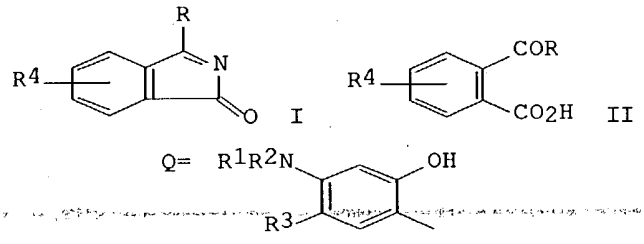
RN 136789-83-8 CAPLUS
CN Phenol, 5-(4-morpholinyl)-2-(2-pyridinylazo)- (9CI) (CA INDEX NAME)



L7 ANSWER 30 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1990:55599 CAPLUS Full-text
DN 112:55599
TI Preparation and hydrolysis of 3-(4-amino-2-hydroxyphenyl)-1-oxo-isoindolenines
IN Kranz, Joachim; Landmann, Bernd; Mayer, Udo
PA BASF A.-G., Fed. Rep. Ger.
SO Ger. Offen., 7 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3800577	A1	19890720	DE 1988-3800577	19880112
	EP 327792	A2	19890816	EP 1989-100028	19890103
	EP 327792	A3	19891004		
	EP 327792	B1	19931222		
	R: CH, DE, FR, GB, IT, LI				
	US 4904798	A	19900227	US 1989-295462	19890110
	JP 01213261	A2	19890828	JP 1989-2964	19890111
PRAI	DE 1988-3800577		19880112		

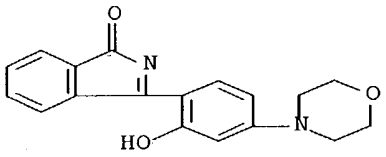
OS CASREACT 112:55599; MARPAT 112:55599
GI



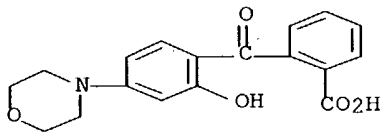
AB The title compds. [I; R = Q; R1 = H, (un)substituted C1-12 alkyl, C5-8 cycloalkyl, Ph; R2 = H, (un)substituted C1-6 alkyl; NR1R2 = morpholino, pyrrolidino, piperdino; R3 = H, Me; R4 = H, Cl, C1-4 alkyl, NO2] were prepared by condensation of 3-aminophenols QH with 3-amino-1-oxo-isoindolenines I (R = NH2, R4 as above) in the presence of acids, and hydrolized to II (R and R4 as defined). Thus, 4,3-Me(EtNH)C6H3OH was heated 1 h at 120° with I.HCl (R = NH2, R4 = H) in DMF to give I (R = Q, R1 = Et, R2 = R4 = H, R3 = Me) which was refluxed 5 h in 20% aqueous KOH to give II (R, R1, R2, R3, R4 unchanged).

IT **124810-41-9P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation and hydrolysis of)
RN 124810-41-9 CAPLUS
CN 1H-Isoindol-1-one, 3-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX

NAME)



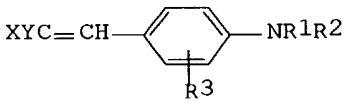
IT **55165-07-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 55165-07-6 CAPLUS
CN Benzoic acid, 2-[2-hydroxy-4-(4-morpholinyl)benzoyl]- (9CI) (CA INDEX NAME)



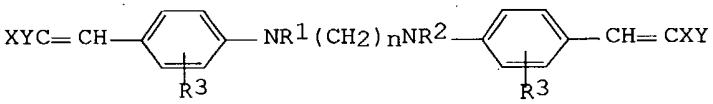
L7 ANSWER 31 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1989:644338 CAPLUS Full-text
DN 111:244338
TI Styryl compounds, process for preparing the same and photoresist compositions comprising the same
IN Yamamoto, Takanori; Furuta, Akihiro; Konishi, Shinji; Hioki, Takeshi; Hanawa, Ryotaro; Tomioka, Jun
PA Sumitomo Chemical Co., Ltd., Japan
SO Eur. Pat. Appl., 25 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 323631	A2	19890712	EP 1988-121773	19881228
	EP 323631	A3	19891213		
	EP 323631	B1	19930811		
	R: BE, DE, FR, GB, IT, NL				
	JP 01172948	A2	19890707	JP 1987-332110	19871228
	JP 02028142	A2	19900130	JP 1988-177752	19880715
	JP 2819562	B2	19981030		
	US 5218136	A	19930608	US 1988-290264	19881227
	EP 510726	A1	19921028	EP 1992-110557	19881228
	EP 510726	B1	19960313		
	R: BE, DE, FR, GB, IT, NL				
	CA 1329599	A1	19940517	CA 1988-587099	19881228
	KR 139093	B1	19980501	KR 1988-17667	19881228
	SG 77100	A1	20001219	SG 1996-1577	19881228
	US 5354644	A	19941011	US 1992-937684	19920901
PRAI	JP 1987-332110	A	19871228		
	JP 1988-177752	A	19880715		
	US 1988-290264	A3	19881227		

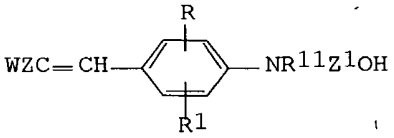
OS MARPAT 111:244338
GI



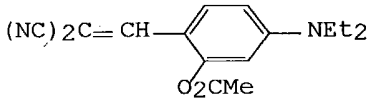
I



II



III



IV

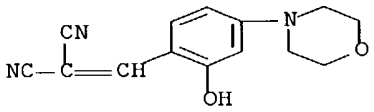
AB Photoresist compns. for forming fine patterns on a substrate having high reflectance without causing halation or notching contain a styryl compound of the formula I, II, or III (R1, R2 = H, (un)substituted alkyl, (un)substituted alkenyl, (un)substituted aralkyl, or together may form a ring; R3 = OH, CO2R4, or OSi(R4)3 where R4 = alkyl; X, Y = CN, CO2R5, CONR6R7, (un)substituted p-nitrobenzyl, (un)substituted benzoyl, or 2-benzimidazolyl where R5 = alkyl and R6, R7 = H, Ph, or (un)substituted lower alkyl; R8 = H, (un)substituted C1-10 alkyl, alkenyl, or aralkyl; R9, R10 = H, (un)substituted lower alkyl, (un)substituted lower alkoxy, amido, or halogen; W, Z = an electron-attracting group; Z1 = substituted C1-10- alkylene) as a light absorber which neither sublimes during prebaking nor ppts. during storage. The resulting photoresist is stable toward the prebaking of the substrate and suffers from less deterioration of sensitivity caused by the addition of the light absorber. Thus, the photoresist PF-6200 containing IV was tested to show excellent antihalation effect, no sublimation upon prebaking, and excellent sensitivity.

IT **124079-97-6P**

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and use of, as light absorber in photoresists)

RN 124079-97-6 CAPLUS

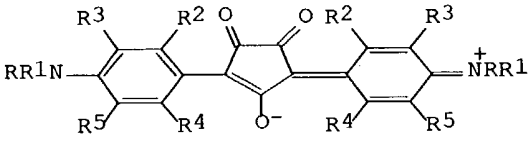
CN Propanedinitrile, [[2-hydroxy-4-(4-morpholinyl)phenyl]methylene]- (9CI) (CA INDEX NAME)



L7 ANSWER 32 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1986:524354 CAPLUS Full-text
DN 105:124354
TI Liquid crystal compositions
IN Miura, Konoe; Ozawa, Tetsuo; Iwanami, Junko
PA Mitsubishi Chemical Industries Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 61031490	A2	19860213	JP 1984-153743	19840724
PRAI	JP 1984-153743		19840724		

GI

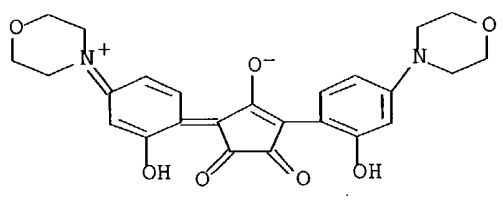


I

AB The title compns. contain croconium compds. [I; R, R1 = H, (substituted) alkyl, tetrahydrofurfuryl, or together may form an N-containing ring; R2-R5 = H, (substituted) alkyl, alkoxy, OH, halo; R2R3 and R4R5 may form an aromatic ring; and RR3 or RR5 may form a N-containing ring]. These compds. are optically stable and have excellent solubility in liquid crystals. Thus, treating croconic acid in BuOH with 2-methyl-5-hydroxy-N-ethylaniline in 1,2-C6H4Cl2 under reflux for 30 min gave I (R, R2, R5 = H; R1 = Et; R3 = Me; R4 = OH) (II). A display device prepared by using a cyanooctylbiphenyl liquid crystal composition containing 0.5% II was irradiated by a GaAlAs semiconductor laser beam to give black images with excellent contrast.

IT **104055-69-8**
RL: USES (Uses)
(liquid crystal compns. containing, for laser-recordable displays)

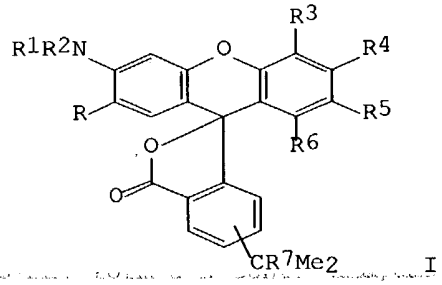
RN 104055-69-8 CAPLUS
CN Morpholinium, 4-[3-hydroxy-4-[2-hydroxy-3-[2-hydroxy-4-(4-morpholinyl)phenyl]-4,5-dioxo-2-cyclopenten-1-ylidene]-2,5-cyclohexadien-1-ylidene]-, inner salt (9CI) (CA INDEX NAME)



L7 ANSWER 33 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1985:525013 CAPLUS Full-text
DN 103:125013
TI Fluoran color formers
IN Mayer, Udo; Oberlinner, Andreas
PA BASF A.-G. , Fed. Rep. Ger.
SO Ger. Offen., 27 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3337387	A1	19850425	DE 1983-3337387	19831014
	EP 138177	A2	19850424	EP 1984-112011	19841006
	EP 138177	A3	19850605		
	EP 138177	B1	19880107		
	R: CH, DE, FR, GB, IT, LI				
	JP 60101152	A2	19850605	JP 1984-212744	19841012
	US 4603202	A	19860729	US 1984-660128	19841012
PRAI	DE 1983-3337387		19831014		

GI



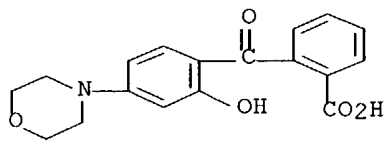
I

AB Fluoran color formers with good solubility in microencapsulation solvents and reduced migration in support materials are represented by general structure I, where R = H or Me; R1 = H or (un)substituted alkyl; R2 = H, (un)substituted alkyl, cycloalkyl, or (un)substituted Ph, or R1R2N = 5- or 6-membered heterocycle; R3 and R4 = H, alkyl, alkoxy, or halogen; R5 = H, halogen, alkyl, etc.; R6 = H, alkyl, or halogen; and R7 = C1-5 alkyl. I are useful in heat- or pressure-sensitive recording systems and produce yellow, orange, red, blue, olive, or black colors when in contact with electron acceptors. Thus, treatment of 4-tert-butyl-2-(2-hydroxy-5- methylbenzoyl)benzoic acid [98233-18-2] in CHCl3 with POCl3 at room temperature and then with 3-(ethylamino)-4-methylphenol [120-37-6] at reflux gave 5'(6')-tert-butyl-3-(ethylamino)-2,7-dimethylfluoran [98181-33-0], which produced deep orange copies when microencapsulated and used in copying paper. Numerous other I were similarly prepared

IT **98181-30-7**
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation reaction of, with naphthol)

RN 98181-30-7 CAPLUS

CN Benzoic acid, 4(or 5)-(1,1-dimethylethyl)-2-[2-hydroxy-4-(4-morpholinyl)benzoyl]- (9CI) (CA INDEX NAME)

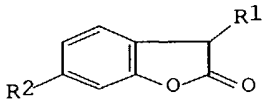


D1—Bu-t

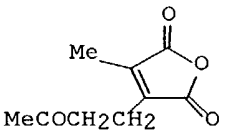
L7 ANSWER 34 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1983:539751 CAPLUS Full-text
DN 99:139751
TI Furans
IN Wenk, Paul; Breitenstein, Werner; Baumann, Marcus
PA Ciba-Geigy A.-G. , Switz.
SO Eur. Pat. Appl., 103 pp.
CODEN: EPXXDW
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 78241	A2	19830504	EP 1982-810439	19821022
	EP 78241	A3	19840328		
	R: AT, BE, CH, DE, FR, IT, LI, LU, NL, SE				
	US 4426380	A	19840117	US 1982-435595	19821021
	FI 8203640	A	19830429	FI 1982-3640	19821025
	GB 2110210	A1	19830615	GB 1982-30351	19821025
	GB 2110210	B2	19850703		
	ES 516842	A1	19840116	ES 1982-516842	19821026
	CA 1199635	A1	19860121	CA 1982-414197	19821026
	DK 8204759	A	19830429	DK 1982-4759	19821027
	NO 8203585	A	19830429	NO 1982-3585	19821027
	AU 8289823	A1	19830505	AU 1982-89823	19821027
	ZA 8207844	A	19830629	ZA 1982-7844	19821027
	DD 204699	A5	19831207	DD 1982-244314	19821027
	HU 29609	O	19840228	HU 1982-3447	19821027
	JP 58126882	A2	19830728	JP 1982-191737	19821028
	US 4451462	A	19840529	US 1983-542334	19831017
	ES 526890	A1	19851001	ES 1983-526890	19831028
	ES 526892	A1	19851001	ES 1983-526892	19831028
	ES 526891	A1	19860201	ES 1983-526891	19831028
PRAI	CH 1981-6882		19811028		
	US 1982-435595		19821021		

GI



I



II

AB Benzofuranones I (R1 = H, aliphatic group; R2 = amino disubstituted with hydrocarbondiyl; benzo ring may be addnl. substituted) and their salts and(or) isomers, useful as inflammation inhibitors, analgesics, and sunscreens for skin (no data), were prepared Imidazo[1,2-a]pyridin-2(3H)- one hydrochloride in aqueous NaOH added to maleic acid to give 3-(1,2-dicarboxyethyl)imidazo[1,2-a]pyridin-2-(3H)-one. The HCl salt of

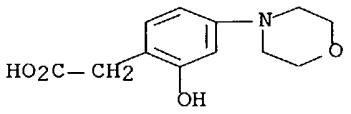
this added to MeCOCH:CH2 and the product was decarboxylated and hydrolyzed to give maleic anhydride II. This reacted with morpholinium benzoate in refluxing C6H6 in 48 h with H2O separation to give I (R1 = Me, R2 = morpholino).

IT **87203-11-0**

RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclization of)

RN 87203-11-0 CAPLUS

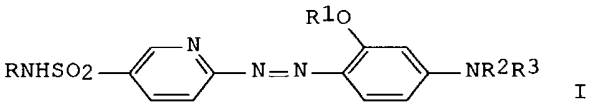
CN Benzeneacetic acid, 2-hydroxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



L7 ANSWER 35 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1983:81473 CAPLUS Full-text
DN 98:81473
TI Photographic products and processes employing novel nondiffusible pyridylazo(dialkylamino)phenol magenta dye-releasing compounds and precursors thereof
IN Anderson, Richard B.; Kalenda, Norman W.
PA Eastman Kodak Co., USA
SO U.S., 18 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4357410	A	19821102	US 1981-282611	19810713
	US 4367174	A	19830104	US 1982-355030	19820305
	US 4368249	A	19830111	US 1982-355001	19820305
	CA 1169050	A1	19840612	CA 1982-398466	19820316
	EP 70481	A1	19830126	EP 1982-106190	19820712
	EP 70481	B1	19850410		
	R: DE, FR, GB				
	JP 58017436	A2	19830201	JP 1982-120720	19820713
PRAI	US 1981-282611		19810713		

GI

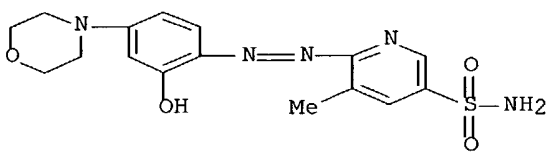


I

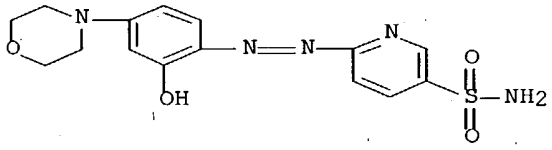
AB A nondiffusible compound for diffusion-transfer photog. which releases a pyridylazo(dialkylamino)phenol magenta dye moiety or its precursor comprises I (R = H, hydrolyzable moiety; R1 = H, a hydrolyzable moiety, or a ballasted carrier moiety; R2, R3 = H, a ballasted carrier moiety, C1-6 alkyl, or together with N form a 5- or 6-membered heterocyclic ring). Thus, a receiving element consisting of a poly(ethylene terephthalate) support containing a Ni sulfate hexahydrate 0.58-gelatin 1.08 g/m2 metal complexing layer and a poly(4-vinylpyridine)-gelatin mordant layer (each at 2.15 g/m2) was immersed in an alkaline solution of I (R = H; R1 = H; R2, R3 = Me), washed, placed in pH 7 buffer, and dried to show λmax = 565 and 530 nm (at min. d.) and λ1/2 (a center of the wavelength range at half the maximum d.) = 536 nm.

IT **84355-84-0 84389-28-6**
RL: PRP (Properties)
(spectral properties of, photog. applications in relation to)

RN 84355-84-0 CAPLUS
CN 3-Pyridinesulfonamide, 6-[[2-hydroxy-4-(4-morpholinyl)phenyl]azo]-5-methyl-
(9CI) (CA INDEX NAME)



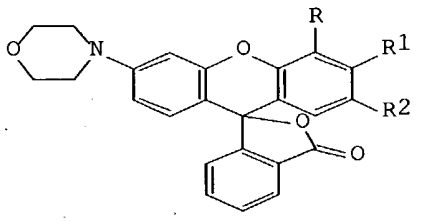
RN 84389-28-6 CAPLUS
CN 3-Pyridinesulfonamide, 6-[[2-hydroxy-4-(4-morpholinyl)phenyl]azo]- (9CI) (CA INDEX NAME)



L7 ANSWER 36 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1983:73839 CAPLUS Full-text
DN 98:73839
TI Chromogenic fluoran compounds
IN Dixon, Leonard Fox
PA Holliday Dyes and Chemicals Ltd., UK
SO Brit. UK Pat. Appl., 6 pp.
CODEN: BAXXDU
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI GB 2097013	A	19821027	GB 1982-10955	19820415
PRAI GB 1981-12191		19810416		

GI

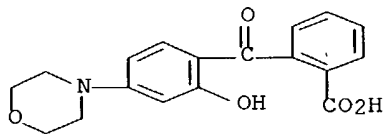


I

AB Chromogenic fluorans (I) for pressure-sensitive record materials are prepared, where R = H or lower alkyl; R1 and R2 independently represent H, alkyl, cycloalkyl, aralkyl, aryl, OH, alkoxy, cycloalkoxy, aralkoxy, or aryloxy; R1 or R2 can be an optionally substituted amino group; and RR1 or R1R2 represents a fused ring. In contact with acidic materials I give red, orange, green, purple, and black colors. Thus, reaction of 2'-hydroxy-4'-morpholinobenzophenone-2-carboxylic acid [**55165-07-6**] with 4-(acetylamino)phenol [103-90-2] in H2SO4 at 50° followed by deacetylation gave almost colorless crystalline I(R = R1 = H, R2 = NH2)(II) [84428-98-8] (after recrystn. from toluene). A toluene solution of II gave a purple black color to acid clay-coated paper. Ten other I were similarly prepared

IT **55165-07-6**
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation reaction of, with aminophenols)

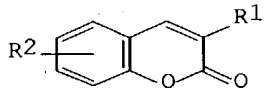
RN 55165-07-6 CAPLUS
CN Benzoic acid, 2-[2-hydroxy-4-(4-morpholinyl)benzoyl]- (9CI) (CA INDEX NAME)



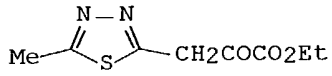
L7 ANSWER 37 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1981:587261 CAPLUS Full-text
DN 95:187261
TI Coumarin compounds
IN Hagen, Helmut; Kohler, Rolf Dieter
PA BASF A.-G. , Fed. Rep. Ger.
SO Ger. Offen., 17 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2950291	A1	19810619	DE 1979-2950291	19791214
	EP 30703	A1	19810624	EP 1980-107746	19801209
	EP 30703	B1	19840321		
	R: BE, CH, DE, FR, GB, NL				
PRAI	DE 1979-2950291		19791214		

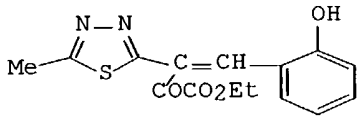
GI



I



II

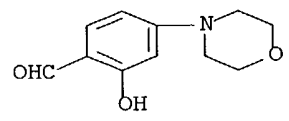


III

AB Coumarins I(R1 = heterocyclyl, R2 = H, aliphatic, cyclo-, araliph., aromatic, OR3, NR32, NO2, halo, R3 independently = aliphatic, cyclo-8 araliph., aromatic, NR32 = heterocyclyl) were prepared by a simpler and more economical method than previously and in better yield and purity. I was fluorescent dyes and optical brighteners (no data) and intermediates for dyes, pesticides, and pharmaceuticals. Stirring a mixture of pyruvate II, 2-HOC6H4CHO, and ZnCl2 2 h at 100° gave 60% condensation product III which was cyclized with NaOMe in Me glycol in 1 h at 130° to give 85% coumarin I (R1 = 5-methyl-1,3,4-thiadiazol-2-yl, R2 = H).

IT **70362-07-1**
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclization of, with thiadiazolylpyruvate ester enolate)

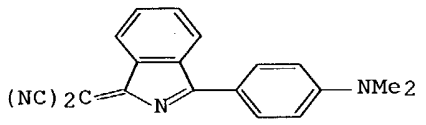
RN 70362-07-1 CAPLUS
CN Benzaldehyde, 2-hydroxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



L7 ANSWER 38 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1981:123114 CAPLUS Full-text
DN 94:123114
TI Disperse dyes and their use
IN Neumann, Peter; Elser, Wolfgang; Bock, Gustav; Kermer, Wolf Dieter
PA BASF A.-G., Fed. Rep. Ger.
SO Ger. Offen., 47 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2912428	A1	19801009	DE 1979-2912428	19790329
	US 4373102	A	19830208	US 1980-128156	19800307
	EP 17132	A1	19801015	EP 1980-101558	19800325
	EP 17132	B1	19811014		
	R: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
	JP 55131064	A2	19801011	JP 1980-39143	19800328
	JP 63060072	B4	19881122		
PRAI	DE 1979-2912428		19790329		

GI

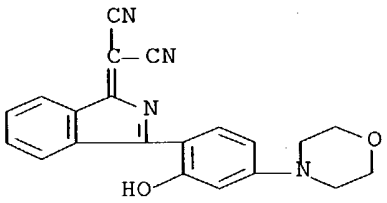


I

AB Substituted 1-(cyanomethylene)-3-(4-aminophenyl)-1H-isoindole derivs. are prepared and used to dye polyester fibers and polystyrene [9003-53-6] fast blue to violet shades. Thus, 3-(dicyanomethylene)-1-iminoisoindoline [43002-19-3] was heated with N,N-dimethylaniline [121-69-7] in Ac2O containing H2SO4 to give I [76751-73-0], reddish blue on polyester fibers.

IT **76751-49-0**
RL: TEM (Technical or engineered material use); USES (Uses)
(dye, for polyester fibers, preparation of)

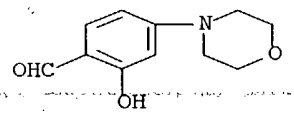
RN 76751-49-0 CAPLUS
CN Propanedinitrile, [3-[2-hydroxy-4-(4-morpholinyl)phenyl]-1H-isoindol-1-ylidene]- (9CI) (CA INDEX NAME)



L7 ANSWER 39 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1980:595485 CAPLUS Full-text
DN 93:195485
TI Pressure-sensitive copying paper
IN Miyazawa, Yoshiei; Motohashi, Katsuichi; Harada, Etsuo; Kato, Hajime
PA Hodogaya Chemical Co., Ltd., Japan; Fuji Photo Film Co., Ltd.
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 55044830	A2	19800329	JP 1978-117983	19780927
PRAI JP 1978-117983		19780927		

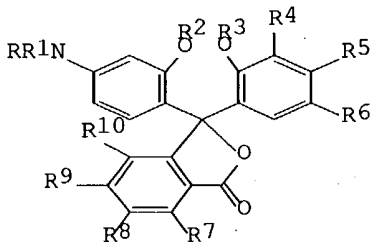
GI For diagram(s), see printed CA Issue.
AB Pressure-sensitive copying materials contain a 7-substituted spiropyran derivative I (R = H, lower alkyl, Ph; A = benzene or naphthalene ring; R1 = pyrrolidinyl, piperidino, morpholino; R may form 5- or 6-membered ring by bonding with the C atom at 3-position) as the dye precursor. Thus, II was microencapsulated by using a conventional method and the resultant microcapsule dispersion was coated on a paper support to give a pressure-sensitive sheet which gave high-optical-d. images having good light fastness when it is used with an acidic clay type color developer sheet.
IT **70362-07-1**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with dimethylnaphthopyrylium chloride ferric chloride)
RN 70362-07-1 CAPLUS
CN Benzaldehyde, 2-hydroxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



L7 ANSWER 40 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1979:620332 CAPLUS Full-text
DN 91:220332
TI Electrorecording paper
IN Iwata, Susumu
PA Ricoh Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 54104352	A2	19790816	JP 1978-9914	19780202
PRAI	JP 1978-9914		19780202		

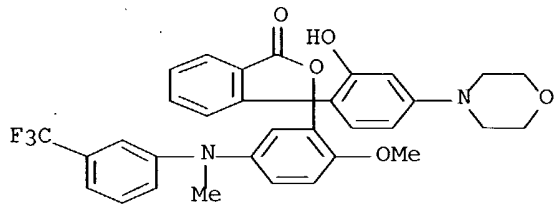
GI



I

AB Lactones of the general formula I [R,R1 = H, lower alkyl, aralkyl, Ph, -CH2CH2CN, -CH2CH2OH, -CH2CH2X (X = halogen); RR1 in combination may form (CH2)4, (CH2)5, (CH2)2O(CH2)2; R2,R3 = H, lower alkyl, aralkyl, acyl, Ph; R4,R5,R6 = H, lower alkyl, lower alkoxy, halo, halomethyl, NO2, amino; R7,R8,R9,R10 = H, lower alkyl, lower alkoxy, halo; R8R9 in combination may complete a naphthalene ring] are used as the color formers for electrorecording materials which are based on the color formation by joule heat. The color formers give images having excellent light fastness. Thus, an Al-laminated paper support was coated with a composition consisting of 3-(4-diethylamino-2-hydroxyphenyl)-3-(5-anilino-4-methyl-2- methoxyphenyl)phthalide 3, ZnO 30, Bisphenol A 6, a 10% poly(vinyl alc.) solution 50, a styrene-acrylic acid copolymer emulsion (20% solids) 5, and H2O 6 g to give an electrorecording paper. The recording was carried out at 120 v, 180 rpm-210 mm, 4 lines/mm, and 10 g/cm2 to form images with optical d. of 0.9. The images showed good light fastness.

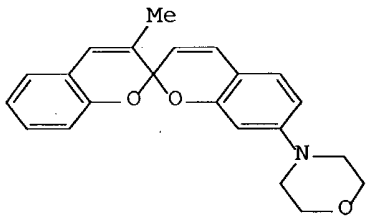
IT **68882-50-8**
RL: USES (Uses)(electrorecording sheet containing)
RN 68882-50-8 CAPLUS
CN 1(3H)-Isobenzofuranone, 3-[2-hydroxy-4-(4-morpholinyl)phenyl]-3-[2-methoxy-5-[methyl[3-(trifluoromethyl)phenyl]amino]phenyl]- (9CI) (CA INDEX NAME)



L7 ANSWER 41 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1979:213274 CAPLUS Full-text
DN 90:213274
TI Leuco dyes for pressure-sensitive copying paper
IN Baumann, Hans; Oberlinner, Andreas
PA BASF A.-G., Fed. Rep. Ger.
SO Ger. Offen., 22 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2737207	A1	19790301	DE 1977-2737207	19770818
	US 4161589	A	19790717	US 1978-932015	19780808
	EP 900	A1	19790307	EP 1978-100629	19780809
	EP 900	B1	19810114		
	R: CH, DE, FR, GB				
	JP 54041880	A2	19790403	JP 1978-100125	19780818
PRAI	DE 1977-2737207		19770818		

GI

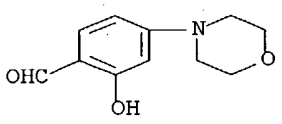


I

AB Spirodipyrans with a fused-on Ph or 2,1-naphthalene ring and N-morpholino (or N-isoindolinyl) as substituent, microencapsulated as practically colorless oily solution, and coated on paper yield red-violet to blue copies in contact with electron acceptors but are less liable to develop color in non-acid areas than precursors containing a NEt2 group in place of the morpholine. Thus, refluxing 2,3-dimethylbenzopyrylium trichlorozincate 165 parts with 4-N-morpholinosalicylaldehyde 105 parts in MeOH 900 parts resulted in a crystalline dye which was decolorized by stirring in a mixture of 25% aqueous NH4OH 500 and PhMe 1000 parts. From the PhMe phase 3'-methyl-7-N-morpholino-2,2'-spirodi(2H-1-benzopyran) (I) 130 parts was recovered.

IT **70362-07-1**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with dimethylbenzopyryliumtrichlorozincate and related compds.)

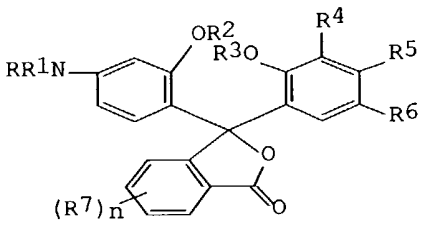
RN 70362-07-1 CAPLUS
CN Benzaldehyde, 2-hydroxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



L7 ANSWER 42 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1979:160127 CAPLUS Full-text
DN 90:160127
TI Thermal recording materials
IN Iwata, Susumu; Kubo, Keiji; Miyajima, Shigeru; Tamura, Hiroshi
PA Ricoh Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 53100838	A2	19780902	JP 1977-14963	19770216
JP 57052918	B4	19821110		
PRAI JP 1977-14963		19770216		

GI

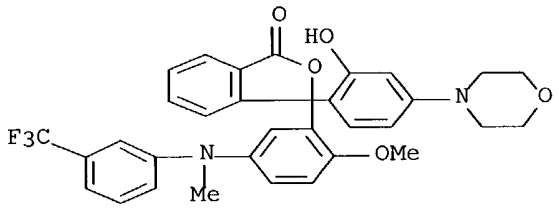


I

AB Heat-sensitive recording materials contain (1) a lactone of the general formula I [R, R1 = H, lower alkyl, aralkyl, Ph, substituted Ph, cyanoethyl, HOCH2CH2, β-haloethyl; RR1 in combination may form (CH2)4, (CH2)5, (CH2)2O(CH2)2; R2, R3 = H, lower alkyl, aralkyl, amyl, Ph; ≥2 of R2 and R3 is H; R4, R5, R6 = H, lower alkyl, lower alkoxy, halogen, halogenated Me, NO2, NH2, substituted amino; R7 = lower alkyl, lower alkoxy, halogen; n = 0-4], an acidic substance, a waxy substance, and an alkaline substance. The thermal recording materials exhibit good resistance toward pressure-induced blemishes, good shelf life, and give high d. clear images. Thus, 3-(4-diethylamino-2-hydroxyphenyl)-3-(5-anilino-4-methyl-2-methoxyphenyl)phthalide 3 g, a 20% poly(vinyl alc.) solution 20 mL, stearamide 6, NaO2CCCl3 2 g, and H2O 30 mL were mixed well, and the resultant dispersion was mixed with another dispersion consisting of Bisphenol A 12 g, a 10% poly(vinyl alc.) solution 10, and H2O 40 mL to give a heat-sensitive coating composition The coating composition was coated on a paper support and used in a thermal printer to give a copy with good image optical d. and good storage stability.

IT **68882-50-8**
RL: USES (Uses)
(coating compns. containing, for thermal recording paper)
RN 68882-50-8 CAPLUS
CN 1(3H)-Isobenzofuranone, 3-[2-hydroxy-4-(4-morpholinyl)phenyl]-3-[2-methoxy-

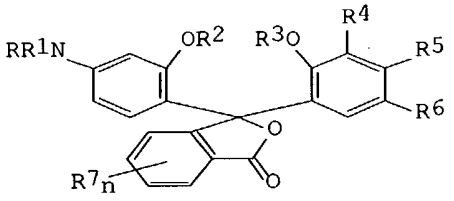
5-[methyl[3-(trifluoromethyl)phenyl]amino]phenyl]- (9CI) (CA INDEX NAME)



L7 ANSWER 43 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1979:95425 CAPLUS Full-text
DN 90:95425
TI Thermal recording materials
IN Iwata, Susumu; Kubo, Keiji; Miyajima, Shigeru; Tamura, Hiroshi
PA Ricoh Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 53099951	A2	19780831	JP 1977-14140	19770214
JP 57052917	B4	19821110		
PRAI JP 1977-14140		19770214		

GI



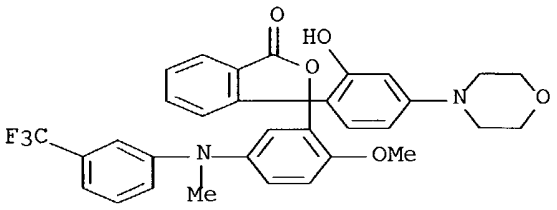
I

AB Thermal recording materials contain an acidic substance, an alkali metal salt, and a lactone of the general formula I (R, R1 = H, lower alkyl, aralkyl, Ph, substituted aralkyl, substituted Ph, CH2CH2CN, CH2CH2OH, 2-haloethyl, or RR1 in combination may complete a pyrrolidino, piperidino, or morpholino group; R2, R3 = H, lower alkyl, aralkyl, acyl, Ph, and ≥1 of R2 and R3 is H; R4, R5, R6 = H, lower alkyl, lower alkoxy, halogen, halomethyl, NO2, NH2, substituted amino; R7 = H, lower alkyl, lower alkoxy, halogen; n = 0-4). The thermal recording materials yield clear images without blemishes. Thus, a dispersion consisting of 3-(4'-diethylamino-2'-hydroxyphenyl)-3-(5'-anilino-4'-methyl-2'-methoxyphenyl)phthalide 3, Na2CO3 2 g, a 10% poly(vinyl alc.) solution 20 and H2O 30 mL was mixed with another dispersion consisting of Bisphenol A 12 g, a 10% poly(vinyl alc.) solution 10, and H2O 40 mL, and the mixture was coated on a paper support to give a thermal recording paper. The paper yielded clear black images when printed with a thermal printer.

IT **68882-50-8**
RL: USES (Uses)
(heat-sensitive color-forming compns. containing organic acid, alkali metal salt and, for thermal recording papers)

RN 68882-50-8 CAPLUS
CN 1(3H)-Isobenzofuranone, 3-[2-hydroxy-4-(4-morpholinyl)phenyl]-3-[2-methoxy-5-[methyl[3-(trifluoromethyl)phenyl]amino]phenyl]- (9CI) (CA INDEX

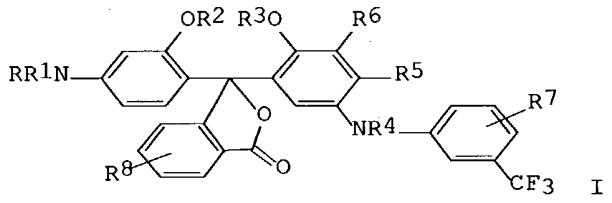
NAME)



L7 ANSWER 44 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1979:64427 CAPLUS Full-text
DN 90:64427
TI Heat-sensitive imaging materials
IN Iwata, Susumu; Kubo, Keiji; Tamura, Hiroshi; Miyajima, Shigeru
PA Ricoh Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 53065739	A2	19780612	JP 1976-140174	19761124
PRAI JP 1976-140174		19761124		

GI

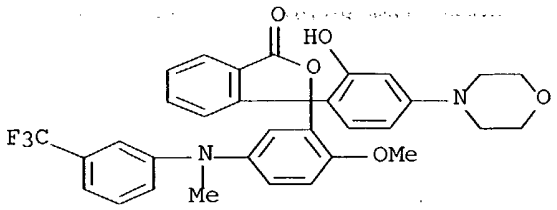


I

AB Heat-sensitive imaging materials are described that contain a lactone of the general formula I [R, R1 = H, lower alkyl, aralkyl, Ph, CH2CH2CN, CH2CH2OH, β-haloethyl, or R,R1 in combination may form (CH2)4, (CH2)5, (CH2)2O(CH2)2; R2, R3 = H, lower alkyl, amyl, Ph, and ≥1 of R2, R3 is H; R4 = H, aralkyl, lower alkyl; R5, R6 = H, lower alkyl, lower alkoxy, halogen, NO2, NH2; R7, R8 = H, lower alkyl, lower alkoxy, halogen; and n, m ≤4] as the color former. Thus, 3-(4'-diethylamino-2'-hydroxyphenyl)-3-(5'-N-methyl-m-trifluoromethylanilino-2'-ethoxyphenyl)phthalide was dispersed in an aqueous poly(vinyl alc.) solution, and Bisphenol A was then dispersed in another poly(vinyl alc.) solution, the 2 dispersions were mixed, and the mixture was coated on a paper support to give a heat-sensitive imaging paper which formed black images with high optical d. and good lightfastness, when used in a thermal printer.

IT **68882-50-8**
RL: USES (Uses)
(color-former compns. containing Bisphenol A and, for heat-sensitive copying papers)

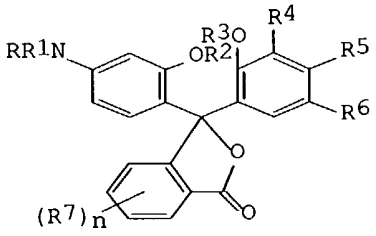
RN 68882-50-8 CAPLUS
CN 1(3H)-Isobenzofuranone, 3-[2-hydroxy-4-(4-morpholinyl)phenyl]-3-[2-methoxy-5-[methyl[3-(trifluoromethyl)phenyl]amino]phenyl]- (9CI) (CA INDEX NAME)


O
HO
O
N
O
F3C
N
OMe
Me

L7 ANSWER 45 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1979:46582 CAPLUS Full-text
DN 90:46582
TI Thermal recording materials
IN Iwata, Susumu; Kubo, Keiji; Tamura, Hiroshi; Miyajima, Shigeru
PA Ricoh Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 53082421	A2	19780720	JP 1976-159144	19761228
JP 57052916	B4	19821110		
PRAI JP 1976-159144		19761228		

GI

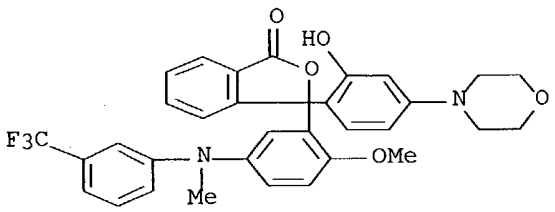


I

AB Thermal recording materials are described which contain a lactone compound I (R, R1 = H, lower alkyl, aralkyl, Ph, cyanoethyl, β-hydroxyethyl, β-haloethyl, or RR1 together form -(CH2)4-, -(CH2)5-, -CH2CH2OCH2CH2-; R2, R3 = H, lower alkyl, aralkyl, amyl, H where ≥1 of R2 and R3 is H; R4, R5, R6 = H, lower alkyl, lower alkoxy, halogen, halomethyl, NO2, amino; R7 = H, lower alkyl, lower alkoxy, halogen; n = 0-4), an acidic substance, and a substance which forms an alkaline substance upon heating. Thus, 3-(4'-diethylamino-2'-hydroxyphenyl)-3-[5'-N- methyl(3''-trifluoromethylphenyl)amino-2'-ethoxyphenyl]phthalide 1, NaO2CCCl3 1, a 10% poly(vinyl alc.) solution 15, and H2O 35 g were mixed well, and the resultant dispersion was mixed with another dispersion composed of 4,4'-isopropylidenediphenol 4, 10% poly(vinyl alc.) solution 15, and H2O 35 g, and the mixture was coated on a paper support to give thermog. recording paper, which yielded a high quality copy when used in a thermal printer.

IT **68882-50-8**
RL: USES (Uses)
(thermog. recording heat-sensitive composition containing)

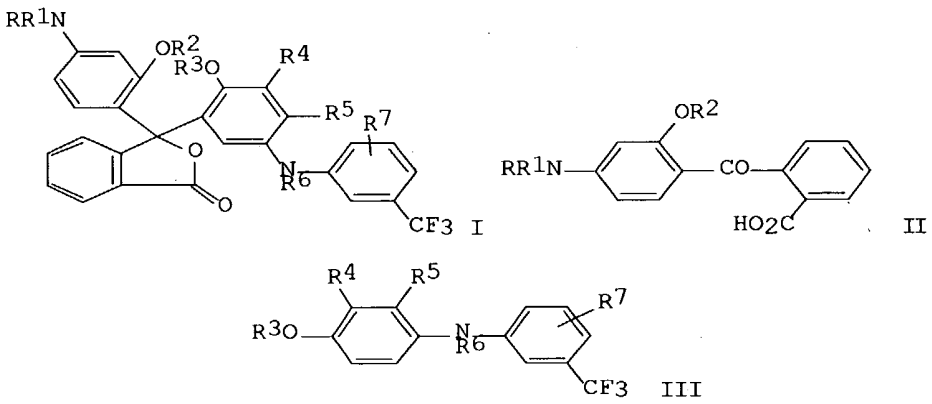
RN 68882-50-8 CAPLUS
CN 1(3H)-Isobenzofuranone, 3-[2-hydroxy-4-(4-morpholinyl)phenyl]-3-[2-methoxy-5-[methyl[3-(trifluoromethyl)phenyl]amino]phenyl]- (9CI) (CA INDEX NAME)


O
HO
O
N
O
F3C
N
Me
OMe

L7 ANSWER 46 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1979:6114 CAPLUS Full-text
DN 90:6114
TI Phthalide derivatives
IN Kawai, Hajime; Tsunemitsu, Katsuhiko
PA Yamada Chemical Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 53063436	A2	19780606	JP 1976-138099	19761116
JP 59052672	B4	19841220		
PRAI JP 1976-138099		19761116		

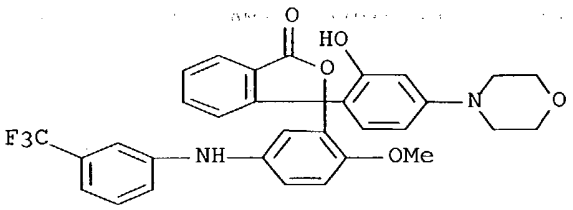
GI



AB Phthalides (I; R, R1 = H, alkyl, aryl, NRR1 = heterocycle; R2 = H, alkyl, R3 = H, alkyl, PhCH2; R4, R5 = H, Me, Cl; R6 = H, Me; R7 = H, Cl) were prepared by condensation of m-HOC6H4NRR1 with phthalic anhydride to give benzopyrones (II) followed by condensation of II with diarylamines (III). I were chromophores. Thus, 31.3 g II (R = R1 = Et, R2 = H) and 26.7 g III (R3 = Me, R4-7 = H) in concentrated H2SO4 was stirred 48 h at 10° to give 50% I (R = R1 = Et, R2 = R4-7 = H, R3 = Me). Similarly prepared were 31 addnl. I.

IT **68535-00-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

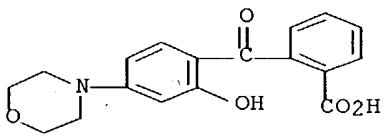
RN 68535-00-2 CAPLUS
CN 1(3H)-Isobenzofuranone, 3-[2-hydroxy-4-(4-morpholinyl)phenyl]-3-[2-methoxy-5-[[3-(trifluoromethyl)phenyl]amino]phenyl]- (9CI) (CA INDEX NAME)


O
HO
O
N
O
F3C
NH
OMe

L7 ANSWER 47 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1976:91647 CAPLUS Full-text
DN 84:91647
TI Fluoran derivatives
IN Yahagi, Masakichi; Toyama, Takafumi; Izaki, Tetsuo; Suzuki, Teruo
PA Nisso Kako Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 14 pp. Division of Japan. Kokai 75 09,430.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 50082127	A2	19750703	JP 1974-95363	19740820
	JP 55049086	B4	19801210		
PRAI	JP 1974-95363		19740820		

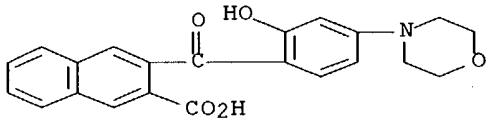
GI For diagram(s), see printed CA Issue.
AB Fluoran derivs. I (R = pyrrolidino, piperidino, or morpholino; R1-R4 include at least 1 amino substituent) are prepared by reaction of 2,4-HORC6H3COC6H4CO2H-2 (II) with an aminophenol or aminonaphthol. I are useful as color-formers in inks for pressure- or heat-sensitive copying paper. For example, 8 g II (R = piperidino) [55165-06-5] was treated with 5.4 g 4,2-HOMeC6H3NHPh [17654-13-6] in 62 g concentrated H2SO4 at 0-10° for 24 hr, poured into ice water and filtered to give 6.2 g I (R = piperidino, R1 = R4 = H, R2 = Me, R3 = NHPh) [55773-64-3] as pale brown crystals, which turn violet in contact with clay and green in contact with phenolic resins. Four addnl. I were similarly prepared Also, 9.7 g p-H2NC6H4OH [123-30-8] was added to 23 g II (R = pyrrolidino) [49742-68-9] in 90 g concentrated H2SO4 at 100-10° and the product [55772-74-2] was alkylated with PhCH2Cl [100-44-7] in xylene at 120-30° to give 5.0 g white I [R = pyrrolidino, R1 = R2 = R4 = H, R3 = N(CH2Ph)2] [55772-83-3], which turned green in contact with clay or phenolic resin. Similar alkylation gave 4 addnl. I.
IT **55165-07-6**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with piperidinophenol)
RN 55165-07-6 CAPLUS
CN Benzoic acid, 2-[2-hydroxy-4-(4-morpholinyl)benzoyl]- (9CI) (CA INDEX NAME)



L7 ANSWER 48 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1975:499215 CAPLUS Full-text
DN 83:99215
TI Fluoran compounds and recording material containing them
IN Hotta, Seiji; Ito, Yukiaki
PA Sumitomo Chemical Co., Ltd., Japan
SO Ger. Offen., 90 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2446313	A1	19750515	DE 1974-2446313	19740927
	JP 50064016	A2	19750530	JP 1973-112591	19731005
	JP 56046997	B4	19811106		
	US 4024157	A	19770517	US 1974-510916	19741001
	GB 1460210	A	19761231	GB 1974-42900	19741003
	FR 2246561	A1	19750502	FR 1974-33567	19741004
	CH 613403	A	19790928	CH 1974-13400	19741004
	US 4156682	A	19790529	US 1976-734668	19761021
PRAI	JP 1973-112591		19731005		
	US 1974-510916		19741001		

GI For diagram(s), see printed CA Issue.
AB Color formers [I, R = H, Br; R1 = Et, Me; R2 = Et, Ph, cyclohexyl, p-MeC6H4; (R1R2N) = morpholino, piperidino; R3 = H; (R3R4) = benzo; R4 = H, Me; R5 = H, Ph, PhCH2, Me, cyclohexyl, substituted Ph; R6 = H, Ph, PhCH2] were prepared and used in pressure-sensitive copying paper giving light-fast dark red to black shades in contact with an acid substrate. Thus, a mixture of 4-HOC6H4NH2 [123-30-8], 2-[4-(diethylamino)-2-hydroxybenzoyl]-3-naphthalenecarboxylic acid [54117-20-3] in H2SO4 was condensed at 20-30° for 10 hr, the reaction mixture containing the anilide derivative poured into ice water, and neutralized with NaOH to give color former I(R = R3 = R4 = R5 = R6 = H, R1 = R2 = Et) [54117-21-4], dark brown in contact with an acid substrate.
IT **56279-07-3**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with toluidinophenol)
RN 56279-07-3 CAPLUS
CN 2-Naphthalenecarboxylic acid, 3-[2-hydroxy-4-(4-morpholinyl)benzoyl]- (9CI) (CA INDEX NAME)



L7 ANSWER 49 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1975:461717 CAPLUS Full-text
DN 83:61717
TI Fluoran derivatives
IN Yahagi, Masakichi; Horiuchi, Shoichi; Toyama, Takahuma; Kashiwagi, Akio
PA Shin Nisso Kako Co., Ltd.
SO Ger. Offen., 86 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

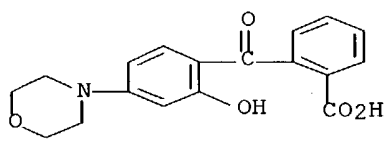
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2424935	A1	19741219	DE 1974-2424935	19740522
	DE 2424935	C2	19880225		
	JP 50009430	A2	19750130	JP 1973-56278	19730522
	JP 51038245	B4	19761020		
	JP 50042913	A2	19750418	JP 1973-93260	19730822
	JP 51038246	B4	19761020		
	JP 50120636	A2	19750922	JP 1974-26876	19740308
	JP 54026929	B4	19790906		
	FR 2230632	A1	19741220	FR 1974-17660	19740521
	FR 2230632	B1	19790720		
	US 3959571	A	19760525	US 1974-472204	19740521
	IT 1011848	A	19770210	IT 1974-68598	19740521
	GB 1478596	A	19770706	GB 1974-22914	19740522
	US 4410708	A	19831018	US 1976-654732	19760203
	US 4677203	A	19870630	US 1983-504272	19830614
PRAI	JP 1973-56278		19730522		
	JP 1973-93260		19730822		
	JP 1974-26876		19740308		
	US 1974-472204		19740521		
	US 1976-654732		19760203		

GI For diagram(s), see printed CA Issue.

AB Fluoran derivs. containing piperidino, pyrrolidino, cyclohexylamino, and morpholino residues in the 3-position were prepared which were less selfdeveloping than corresponding 3-Et2N derivs. and were used as color formers for heat-and pressure-sensitive copying paper. Thus, a mixture of 2-(2-hydroxy-4-piperidinobenzoyl)benzoic acid [55165-06-5] and PhNHC6H3(OH)Me-4,2 [17654-13-6] in H2SO4 was held at 0-10° for 24 hr to give fluoran derivative (I) [55773-64-3]. Similarly, 98 other fluoran derivs. were prepared and their color on acid substrates were given.

IT **55165-07-6**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with piperidinophenol)

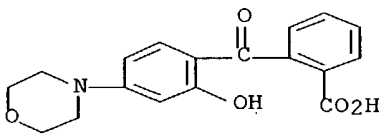
RN 55165-07-6 CAPLUS
CN Benzoic acid, 2-[2-hydroxy-4-(4-morpholinyl)benzoyl]- (9CI) (CA INDEX NAME)



L7 ANSWER 50 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1975:155802 CAPLUS Full-text
DN 82:155802
TI Benzophenone derivatives
IN Yahagi, Masakichi; Toyama, Takafumi; Igaki, Tetsuo
PA Nisso Chemical Industries, Ltd.
SO Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 49133367	A2	19741221	JP 1973-47349	19730428
	JP 52010871	B4	19770326		
PRAI	JP 1973-47349		19730428		

GI For diagram(s), see printed CA Issue.
AB Benzophenone derivs. (I; R = piperidino, pyrrolidino, morpholino) were prepared by reacting m-RC6H4OH with phthalic anhydride (II). Thus, a mixture of 18 g m-pyrrolidinophenol and 15 g II in PhMe was stirred 4 hr at 110° to give 21 g I (R = pyrrolidino).
IT **55165-07-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 55165-07-6 CAPLUS
CN Benzoic acid, 2-[2-hydroxy-4-(4-morpholinyl)benzoyl]- (9CI) (CA INDEX NAME)



L7 ANSWER 51 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1972:461917 CAPLUS Full-text

DN 77:61917

TI Aminobenzenes. VIII. Rearrangement of phenyl carbamates. Syntheses of 2,4-dioxo-3,4-dihydro-2H-1,3-benzoxazines and salicylamides

AU Effenberger, Franz; Niess, Rolf; Schick, Max

CS Inst. Org. Chem., Univ. Stuttgart, Stuttgart, Fed. Rep. Ger.

SO Chemische Berichte (1972), 105(6), 1926-42
CODEN: CHBEAM; ISSN: 0009-2940

DT Journal

LA German

OS CASREACT 77:61917

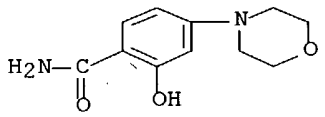
GI For diagram(s), see printed CA Issue.

AB Thermal rearrangement of N-aryl-substituted m-RC6H4O2CNHR1 (I, R = pyrrolidinyl, piperidino, or Me2N; R1 = Ph, Bz, or p-ClC6H4CO) obtained from m-RC6H4OH and R1NCO gave 4,2-R(HO)C6H3-CONHR1 (II), whereas N-alkoxy-substituted I gave 2,4-dioxo-3,4-dihydro-2H-1,3-benzoxazines (III). III were cleaved by dilute KOH with CO2 evolution to give II (R1 = H). The mechanism of this Fries rearrangement-like reaction involving an intramol. path is discussed.

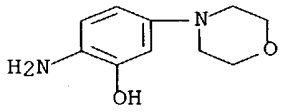
IT **37893-38-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 37893-38-2 CAPLUS

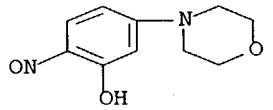
CN Benzamide, 2-hydroxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



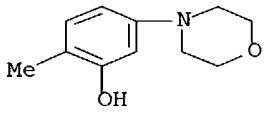
L7 ANSWER 52 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1970:403589 CAPLUS Full-text
DN 73:3589
TI Synthetic schistosomicides. XVI. 5-(Mono- and dialkylamino)-2-nitrosophenols, 2-amino-5-(dialkylamino)phenols, and related compounds
AU Elslager, Edward F.; Worth, Donald F.
CS Div. of Med. and Sci. Affairs, Parke Davis and Co., Ann Arbor, MI, USA
SO Journal of Medicinal Chemistry (1970), 13(3), 370-6
CODEN: JMCMAR; ISSN: 0022-2623
DT Journal
LA English
OS CASREACT 73:3589
AB Various 5-(mono- and dialkylamino)-2-nitrosophenols were prepared by nitrosation of the corresponding m-(mono- and dialkylamino)phenols, obtained by heating resorcinol with an excess of the appropriate amine at 200°, or by alkylation of m-aminophenol with an alkyl halide. 5-(Dimethylamino)-2-nitrosophenol, 5-(diethylamino)-2-nitrosophenol (I), 2-nitroso-5-(1-pyrrolidinyl)phenol, and 2-amino-5-(diethylamino)phenol, a potential metabolite of I, displayed strong schistosomicidal activity and effected a 70-100% reduction of adult Schistosoma mansoni in mice at daily doses of 177-568 mg/kg for 14 days. Structure-activity relationship are summarized, and information concerning potential metabolites and the possible mode of action of the nitrosophenols is discussed.
IT **25912-15-6P 27292-55-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 25912-15-6 CAPLUS
CN Phenol, 2-amino-5-(4-morpholinyl)- (9CI) (CA INDEX NAME)



RN 27292-55-3 CAPLUS
CN Phenol, 5-morpholino-2-nitroso- (8CI) (CA INDEX NAME)



L7 ANSWER 53 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1960:91607 CAPLUS Full-text
DN 54:91607
OREF 54:17342e-i
TI Rearrangement of o-benzoquinol acetates with amines
AU Langer, F.; Zbiral, E.; Wessely, F.
SO Monatshefte fuer Chemie (1959), 90, 623-33
CODEN: MOCMB7; ISSN: 0026-9247
DT Journal
LA Unavailable
OS CASREACT 54:91607
AB o-Benzoquinol acetates (I) reacted readily with primary and secondary aliphatic and aromatic amines to form the corresponding N-substituted m-aminophenols (II). The syntheses were carried out with either the Li derivative of the amine (Method A) or with the free amine (Method B). To the amine in absolute dioxane was added PhLi in Et2O to form 2 mols. Li derivative of the amine/mol. I, the mixture cooled to -60°, I added, the mixture allowed to warm to -30 to -40° 5 min. (the reaction usually set in), held at room temperature 2 hrs., acidified with HOAc, diluted with water, extracted with Et2O, and distilled The free base was treated with a 2-4 fold amount of I on the steam bath 0.5-4 hrs., water and 10% NaOH added simultaneously, the mixture filtered, the product precipitated with CO2, extracted with Et2O, distilled, and recrystd. from benzene-petr. ether. The following reactions were run (method, % yield of II, I, amine, and m.p. of II given). A, 1, 2-methyl-o-benzoquinol acetate (III), NH3, 159-61°; A, 44, III, Me2CHC2H4NH2, 90-1°; A, 52, III, Me(CH2)4NH2, 93-5°; A, 50, III, Me2CHCH2NH2, 93-4°; A, 10, III, EtO2CCH2NH2 (IV), 98-9°; A, 25, III, EtO2C(CH2)2NH2 (V), 59-61°; A, -, III, di-n-octylamine, - [20% o-cresol (VI) formed]; A, -, III, (Me2CHCH2)2NH, - (20% VI formed); A or B, -, III, ethylene imine, - (resinification); A (B), 95 (65), III, piperidine (VII), 162°; B, 67, III, morpholine, 152°; A (B), 97 (3), III, pyrrolidine (VIII), 160°; B, 83, III, PhNH2 (IX), 127°; B, 42, III, p-MeOC6H4NH2, 100°; B, 10, III, p-O2NC6H4NH2, 139°; B, 35, 2-H2NC5H5N, III, - [picrate m. 241-5° (decomposition)]; A, -, III, Ph2NH (X), - (20% VI formed); A, 20, III, Bu2NH, - (15% VI also formed); B, 60, III, Et2NH, - (5% VI also formed); A (B), 1(0), 2,4-dimethyl-o-benzoquinol acetate (XI), NH3, 158-60°; A(B), 50(25), XI, n-AmNH2, 61-3°; B, 50, XI, IV, 87-8°; B, 57, XI, V, 76-7°; B, 74, XI, VII, 128°; A(B), 84(84), XI, VIII, 145°; B, 83, XI, X, 95°; B, 83, 2-phenyl-o-benzoquinol acetate (XII), VII, 177°; B, 88, XII, IX, 107°. N-(3-Hydroxy-4-methylphenyl)piperidine was also prepared in 31.4% yield from 5 mmoles Br(CH2)5Br and 15 mmoles 4,3-Me(MeO)C6H3NH2 (XIII) by heating 30 min. at 100°, 3 hrs. at 120-5°, refluxing 3 hrs. with 20 ml. aqueous HBr (d. 1.38), drying, taking up in N NaOH, filtering, saturating with CO2, extracting with C6H6, subliming to remove XIII, and decolorizing with animal C from C6H6-alc.
IT **103855-89-6**, o-Cresol, 5-morpholino-
(preparation of)
RN 103855-89-6 CAPLUS
CN o-Cresol, 5-morpholino- (6CI) (CA INDEX NAME)



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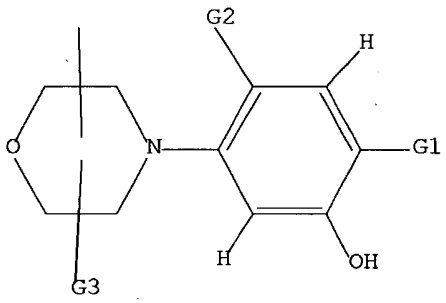


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 G1 Ak,Cb,Hy,O,N,CF3,COOH,CN,CHO,NO2
 G2 H,S,N
 G3 O,Cb,Ak,H

Structure attributes must be viewed using STN Express query preparation.

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L3                STRUCTURE UPLOADED
L4             39 S L3
L5              5 S L1
L6             86 S L1 FUL

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L7             53 S L6

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